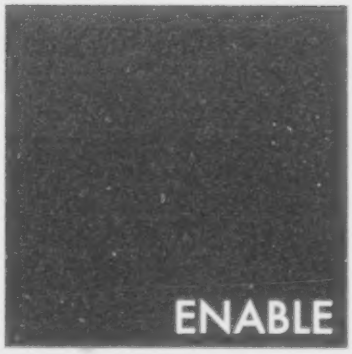
National Energy Board

Office national de l'énergie



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TO PARLIAMENT

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National Energy Board
Office national de l'énergie

Office of the Chairman
Bureau du Président

22 March 2005

The Honourable R. John Efford, P.C., M.P.
Minister of Natural Resources
580 Booth Street, 21st Floor
Ottawa, Ontario K1A 0E4

Dear Minister:

I am pleased to submit the Annual Report of the National Energy Board for the year ending 31 December 2004, in accordance with the provisions of Section 133 of the *National Energy Board Act*, R.S.C. 1985, c. N-7.

Yours truly,

Kenneth W. Vollman
Chairman

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OUR PURPOSE

We promote safety, environmental protection, and economic efficiency in the Canadian public interest within the mandate set by Parliament in the regulation of pipelines, energy development and trade.

OUR VISION

To be a respected leader in safety, environmental and economic regulation.

OUR GOALS

NEB-regulated facilities and activities are safe and perceived to be safe.

NEB-regulated facilities are built and operated in a manner that protects the environment and respects the rights of those affected.

Canadians derive the benefits of economic efficiency.

The NEB fulfils its mandate with the benefit of effective public engagement.

The NEB is effective in leading its people and managing its resources.

105-03777/

The Energy Market in 2004 saw the continuation of the trends established in previous years. The most notable and apparent to all Canadians were the high and volatile energy prices led by crude oil prices, rising to more than US$50 per barrel in late October and staying over US$40 throughout the year. Despite increased exploration efforts, the declining supply of domestic conventional crude oil and flat domestic natural gas production continued to move producers to develop non-traditional supply sources. For crude oil, the focus was on expansion of production from the East Coast offshore and from Alberta's oil sands. For natural gas, much attention has been placed on developing supply sources in Canada's North, developing coalbed methane sources and the import of liquefied natural gas.

The development of these non-traditional supply sources is presenting challenges for both the markets and the National Energy Board (NEB). While there is some spare capacity on the existing natural gas transportation infrastructure, applications for new pipelines to deliver production from new sources continue to be filed. In contrast, the Canadian oil pipeline infrastructure is being strained to the limit and plans are being made for both expansions and new pipelines to accommodate growing oil sands production.

A key issue for several Canadian electricity markets is declining generation reserve margins. Efforts to improve the electricity supply/demand balance have been focused on increasing conventional and renewable generation capacity, applying new technologies, and enhancing demand side management and demand response programs.

The Regulator's Role in the emerging energy market environment is encompassed by two words – *protect* and *enable*. The NEB needs to both protect and enable in order to achieve outcomes that are in the public interest. In harnessing our energy resources, we must protect the things that are important to Canadians: the integrity of our environment; respect of individual property; public safety and security; and effective market functioning.

The word *enable* implies a responsibility to *make possible*. As new supply sources are developed, including both traditional fossil fuel sources and newer sources such as wind power, investment in infrastructure is required to transport this energy to consumers - to heat our homes, power our appliances, and move us around. Enabling means providing a clear set of rules, which support investors and encourage investment to proceed, within the limits of consumer protection. Finally, the concept of enabling implies a responsibility to provide efficient regulatory processes and practices so that projects found to be in the public interest can proceed on a timely basis.

Major infrastructure projects can affect Canadians and the Board takes its protection responsibilities very seriously. In public hearings on energy infrastructure, significant hearing time is dedicated to matters around protection. The NEB's challenge is to find the balance between enabling and protecting.

The smart regulation concepts of goal-oriented regulation, streamlining of processes, regulatory clarity, and partnerships and cooperation assist the NEB in enabling, which drives many of its activities. The Board's work on issuing goal-oriented regulations continues. Regulatory clarity should be enhanced by the issuance of the *Filing Manual* in April 2004 as well as the publication of service standards for the processing of non-hearing facilities applications. During 2004, the Board made substantial progress in working with other regulatory boards and agencies to improve the coordination of review processes. As part of these efforts, we made proposals to improve clarity, collaboration and timeliness of environmental assessments conducted under the *Canada Environmental Assessment Act* and our efforts in this direction will continue in 2005.

Over the past few years, the Board has expended much effort preparing for an application for a new gas pipeline from Canada's North. Imperial Oil Resources Ventures Limited filed applications for the Mackenzie Valley Gas Pipeline in October 2004. The filing of these applications triggered the use of the cooperative regulatory framework that integrates the regulatory roles of fourteen boards and agencies involved in the project.

The Board presided over two toll and tariff hearings in 2004 for TransCanada PipeLines Limited, largely dealing with issues arising from decontracting. The Board is striving to find ways to improve the timeliness of toll hearings and provide more long-term certainty to investors.

Aboriginal issues continue to play a large role in energy regulation. The NEB is reviewing new case law on consultation with Aboriginal peoples to ensure that its regulatory processes are in compliance with ongoing legal developments in this area.

Monitoring of energy markets and the provision of energy advice remain cornerstones of NEB operations. In 2004, seven energy market assessments were produced covering various aspects of the oil, natural gas and electricity markets. The second annual publication of *Focus on Safety – A Comparative Analysis of Pipeline Safety Performance* has been very well received by industry. Information on the six key performance indicators indicate that the safety performance of NEB-regulated facilities compare well with the performance of facilities in other countries. Publications like these allow the Board to be regarded as a respected and objective source of energy market information.

During 2004, the NEB invested significant effort on improving internal processes. Some examples include documenting the management system that we are using, improving e-filing, and implementing service standards. These activities position the NEB to better serve the Canadian public.

In the dynamic energy environment, 2004 has been a challenging year for the NEB. I strongly believe that the National Energy Board remains well-positioned to carry out its role in the future development of Canada's energy industry by protecting and enabling in the public interest of all Canadians.

ABOUT THE NEB

The National Energy Board (NEB or Board) is an independent regulatory tribunal that was established in 1959. It reports to Parliament through the Minister of Natural Resources. The main responsibilities of the NEB are found in the *National Energy Board Act* (NEB Act). These include regulating the construction and operation of pipelines that cross international or provincial borders, as well as tolls and tariffs[2]. Another key role is to regulate international power lines and designated interprovincial power lines. The NEB also regulates natural gas imports and exports, oil and electricity exports, and some oil and gas exploration on frontier[3] lands, particularly in Canada's North and certain offshore areas. The Board has additional regulatory responsibilities under the *Canada Oil and Gas Operations Act* (COGO Act) and under certain provisions of the *Canada Petroleum Resources Act* (CPR Act).

Under the NEB Act, the NEB's mandate includes environmental protection as a component of the public interest. The NEB also has environmental responsibilities under the *Canadian Environmental Assessment Act* (CEA Act) and the *Mackenzie Valley Resource Management Act*. In addition, certain Board inspectors are appointed Health and Safety officers by the Minister of Labour to administer Part II of the *Canada Labour Code* as it applies to facilities and activities regulated by the Board.

The NEB's mandate also includes the provision of expert technical advice to the Canada-Newfoundland Offshore Petroleum Board (C-NOPB), the Canada-Nova Scotia Offshore Petroleum Board (C-NSOPB), Natural Resources Canada (NRCan), and the Department of Indian and Northern Affairs (DIAND). The NEB Act requires that the Board keep under review matters relating to all aspects of energy supply, production, development and trade that fall within the jurisdiction of the federal government. The NEB may, on its own initiative, hold inquiries and conduct studies on specific energy matters as well as prepare reports for Parliament, the federal government and the general public. Upon request, the NEB provides advice to the Minister of Natural Resources and other government ministers, departments and agencies.

The NEB's corporate purpose is to promote safety, environmental protection and economic efficiency in the Canadian public interest[1] within the mandate set by Parliament in the regulation of pipelines, energy development and trade.

The NEB's vision is to be a respected leader in safety, environmental and economic regulation.

1. The public interest is inclusive of all Canadians and refers to a balance of economic, environmental, and social interests that changes as society's values and preferences evolve over time. As a regulator, the Board must estimate the overall public good a project may create and its potential negative aspects, weigh its various impacts, and make a decision.
2. The amount charged by pipeline companies for transporting energy and the conditions under which they provide service.
3. Those lands in the North and in offshore areas that are not subject to a federal/provincial shared management agreement.

The NEB is a court of record and has the powers of a superior court with regard to compelling attendance at hearings, the examination of witnesses under oath, the production and inspection of documents, and the enforcement of its orders. The NEB Act provides for up to nine permanent Board Members, who are assisted by staff including financial analysts, environmental specialists, economists, engineers, geologists, geophysicists, and lawyers, among others. Public hearings are typically conducted by three Board Members, who constitute a quorum of the Board, with one acting as the Presiding Member. The Board's regulatory decisions and the reasons for them are issued as public documents.

Additional information on the background and operations of the NEB may be found at the Board's Internet site, www.neb-one.gc.ca.

REGULATORY HIGHLIGHTS

In 2004, the NEB considered applications for new pipeline facilities, new international power lines, tolls and tariffs filings, activities on frontier lands, and requests for changes to short-term export orders. The Board continued to monitor, assess and enforce compliance within the regulated industry through a comprehensive program of inspections and audits. The NEB also prepared reports on current and future energy market developments in Canada. These activities are summarized below:

Certificates, Orders, Permits and Applications Approved in 2004

- 573 total Certificates, Orders, Permits and Letter Approvals

Construction and Operation of Pipelines and Power Lines under Parts III and III.1 of the NEB Act

- 100 Orders and Permits

Pipeline Tolls and Tariffs under Part IV of the NEB Act

- 27 Orders

Export of Natural Gas, Crude Oil and Electricity under Part VI of the NEB Act

- 363 Orders and Permits

Letter Approvals

- 83 Letters

Exploration and Production Activity in Frontier Areas under the COGO Act

- 49 applications approved

Activity in Frontier Areas under the CPR Act

- 3 Significant Discovery Declarations
- 4 Commercial Discovery Declarations

Proceedings

- 2 public hearings
- 34 public hearing days

Compliance Monitoring

- 84 inspections undertaken during construction
- 104 inspections of operating pipelines and facilities
- 4 management system audits

Appropriate Dispute Resolution Program

- 2 landowner files addressed

Publications Providing Energy Market Information

- *Natural Gas Prices in the Maritimes* (March 2004)
- *Canada's Conventional Natural Gas Resources: A Status Report* (April 2004)
- *The British Columbia Natural Gas Market: An Overview and Assessment* (April 2004)
- *Canada's Oil Sands: Opportunities and Challenges to 2015* (May 2004)
- *A Compendium of Electricity Reliability Frameworks Across Canada* (June 2004)
- *Looking Ahead to 2010: Natural Gas Markets In Transition* (August 2004)

- *Short Term Canadian Natural Gas Deliverability 2004 – 2006* (November 2004)

DEVELOPING REGULATIONS AND GUIDELINES

The *Speech from the Throne 2004* renewed the 2002 federal government commitment to smart regulation as a key strategy in maintaining a Canadian advantage in a globally competitive world. In September 2004, the External Advisory Committee on Smart Regulation (EACSR) released its report, *Smart Regulation: A Regulatory Strategy for Canada*.

In keeping with the principles set out in the EACSR report, the NEB continued to develop its own smart regulation strategy based upon a goal-oriented approach to regulation, coupled with clear and predictable regulatory processes and effective cooperation and partnerships with government agencies and boards.

In the goal-oriented approach to regulation, the regulations identify the outcomes that they seek to attain, while allowing companies the flexibility to select the methods to achieve the outcomes. The goal-oriented approach promotes increased industry responsibility, allows for flexibility and efficiency, and provides opportunities to adopt improved operational and safety techniques in a more timely manner. It places an increased emphasis on risk assessment and the use of management systems.

As part of efforts to continually improve the regulatory framework, the NEB commissioned an evaluation on the effectiveness of its goal-oriented approach to regulation in 2004. The objectives of this report were to assess the effectiveness of goal-oriented regulation, to identify gaps in the current use of this approach and to develop specific actions for addressing these gaps. Both internal and external stakeholders were surveyed for their experiences and opinions. The evaluation found general support for goal-oriented regulation, both internally and externally, and made fourteen specific recommendations to improve the NEB's implementation of goal-oriented regulation. The report can be viewed at: http://www.neb-one.gc.ca/Publications/index_e.htm#InternalAuditEvaluation.

With positive support for the goal-oriented approach, the Board began work on several new regulations this year, including new *Submerged Pipeline Regulations* using this approach. The NEB also began consultations on modifications to the *National Energy Board Cost Recovery Regulations* as a result of a request from the electricity industry. In addition, new *Damage Prevention Regulations*, and revised *Canada Oil and Gas Diving Regulations*, were submitted to the Department of Justice for examination pursuant to the *Statutory Instruments Act*.

The NEB was also active in developing and maintaining regulations regarding exploration and development activities under the COGO Act. These regulations, developed in co-operation with NRCan, the C-NOPB, the C-NSOPB, the Nova Scotia Department of Natural Resources and the Newfoundland Department of Mines and Energy, ensure common regulatory approaches for activities in the offshore regions, the Northwest Territories and Nunavut. In 2004, the NEB initiated revisions to:

- *Canada Oil and Gas Drilling and Production Regulations*; *Newfoundland Offshore Area Oil and Gas Drilling and Production Regulations*; and *Nova Scotia Offshore Area Oil and Gas Drilling and Production Regulations*;
- Amalgamation of *Canada Oil and Gas Production and Conservation Regulations* and *Canada Oil and Gas Drilling Regulations* in order to update and streamline its administration;
- *Canada Offshore Oil and Gas Installation Manager Regulations*; *Newfoundland Offshore Oil and Gas Installation Manager Regulations*; and *Nova Scotia Offshore Oil and Gas Installation Manager Regulations* in order to produce new regulations that are acceptable to

the C-NOPB and the C-NSOPB regarding the qualifications of Offshore Installation Managers; and

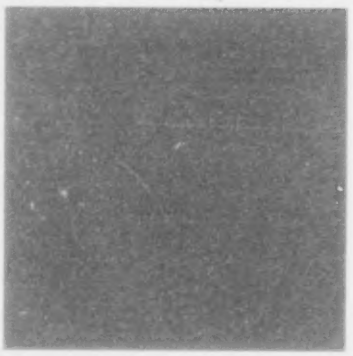
- *Oil and Gas Occupational Safety and Health Regulations* in order to conform with the *Canada Occupational Health and Safety Regulations* under the *Canada Labour Code*.

The NEB also provided advice to Human Resources and Skills Development Canada (HRSDC) for the update of the *Oil and Gas Occupational Safety and Health Regulations* under the *Canada Labour Code*, Part II.

The Board continued to participate with industry, government and stakeholder groups in a number of initiatives to develop consensus-based standards, best practices and common approaches to safety and environmental issues. For example, the NEB participated in the Canadian Pipeline Environment Committee that produced the information document *The Pipeline Industry and the Migratory Birds Convention Act*.

In 2004, the Board considered applications for new pipeline facilities, new international power lines, tolls and tariffs filings, applications for short-term export orders for oil and gas, and export permits for electricity. Appendices B, C and E contain details of regulatory decisions issued in 2004.

One new major facilities application was received in 2004. Applications for smaller pipelines, facilities expansions or power line facilities often require as much scrutiny from the Board as do major facilities applications. In considering an application, large or small, the Board is cognizant of its public interest responsibilities. The Board takes its role seriously when considering the balance of environmental, economic and social interests.



PIPELINE FACILITIES

Mackenzie Gas Project

The Board has received five applications from Imperial Oil Resources Ventures Limited (Imperial) and other applicants for the construction and operation of the Mackenzie Gas Project in Northern Canada (Figure 1). The proponents of the Mackenzie Gas Project are Imperial Oil Resources Ventures Limited, Mackenzie Valley Aboriginal Pipeline Limited Partnership, Imperial Oil Resources Limited, ConocoPhillips Canada (North) Limited, ExxonMobil Canada Properties and Shell Canada Limited. The applications were filed in October 2004.

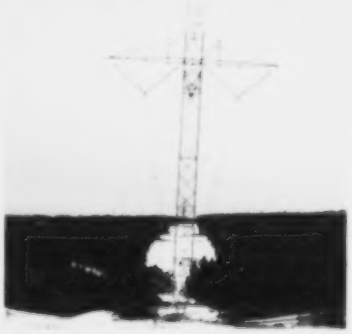
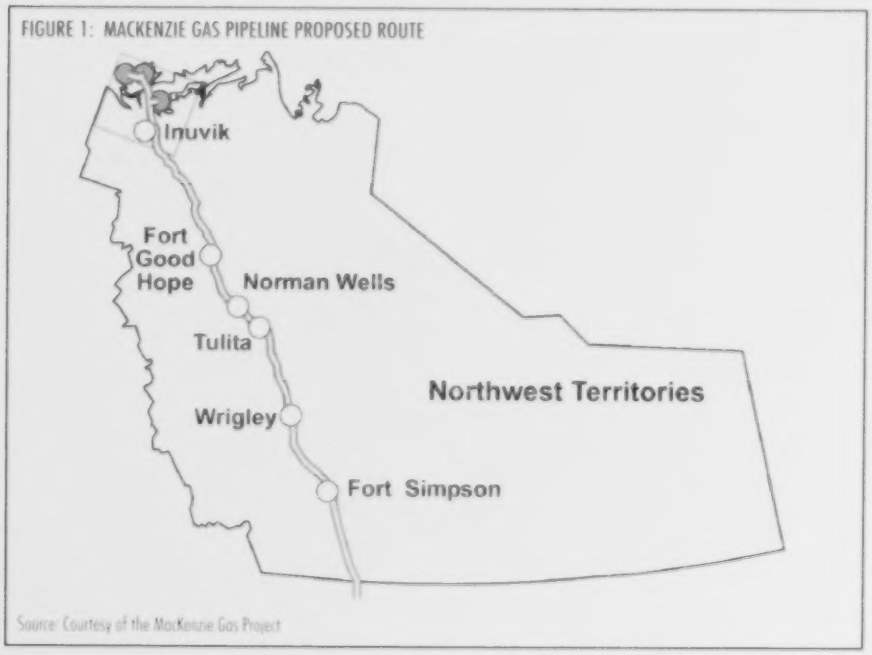


FIGURE 1: MACKENZIE GAS PIPELINE PROPOSED ROUTE



Source: Courtesy of the MacKenzie Gas Project

The pipeline project would be anchored by three onshore natural gas fields known as Taglu, Parsons Lake and Niglintgak and operated by Imperial Oil, ConocoPhillips, and Shell Canada, respectively. Development plans for these three fields have been filed with the NEB. Imperial has also applied for approval to construct a 176 kilometre gas gathering system to collect the gas from the three fields and deliver it to a processing facility near Inuvik. At the processing facility, natural gas liquids would be separated out. The natural gas would enter the proposed 1 220 kilometre pipeline and the liquids would enter a smaller, parallel pipeline of approximately 475 kilometres that would connect to the Enbridge Pipelines (NW) Inc. pipeline at Norman Wells.

The 762 millimetre (30 inch) natural gas transmission pipeline is planned to transport 34 million cubic metres (1.2 billion cubic feet) per day. The capital cost of the Mackenzie Gas Project is estimated at over $7 billion. The proponents plan to have it in operation by 2009.

The NEB Hearing Order GH-1-2004 issued in November 2004 is available on the NEB Internet site. The hearing will obtain evidence and views of interested persons with respect to the Mackenzie Gas Project. The NEB hearing process will be coordinated with the Environmental Impact Review of the Mackenzie Gas Project by the Joint Review Panel as contemplated by the *Cooperation Plan for the Environmental Impact Assessment and Regulatory Review of a Northern Gas Pipeline Project through the Northwest Territories* (Cooperation Plan), dated June 2002. A date has not been set for the commencement of the oral public hearing.

TOLLS AND TARIFFS MATTERS

TransCanada 2004 Tolls Application Phase I

In March 2004, the Board issued Hearing Order RH-2-2004 establishing a two-phase oral public hearing to consider TransCanada PipeLines Limited's 2004 Tolls Application. Phase I considered all issues raised by the 2004 Tolls Application, with the exception of cost of capital. Phase II of the hearing is considering cost of capital issues.

In September 2004, the Board released its RH-2-2004 Phase I Decision. Subject to any impact resulting from the Phase II Decision, the Board approved a Net Revenue Requirement for 2004 of $1.7 billion and a rate base of $8.2 billion. This compares to the 2003 Net Revenue Requirement of $1.9 billion and a rate base of $8.6 billion. In addition, the Board approved TransCanada's proposal for a non-renewable firm transportation service which will be a biddable service providing term-limited blocks of capacity made available when TransCanada awards firm contracts commencing more than one year in the future. However, the Board denied the proposed continuation of a modified 2003 Fuel Gas Incentive Program for 2004 and stated that it expects parties to negotiate a mutually satisfactory Fuel Gas Incentive Program to be filed for 2005. The Board also directed that TransCanada work with its Tolls Task Force to develop a revised Code of Conduct and file it with the Board no later than 28 February 2005. On 12 November 2004, CAPP applied for a review of the Board's RH-2-2004, Phase I Decision with respect to TCPL's 2004 Mainline Tolls. In November 2004, Phase II of RH-2-2004 commenced and continued into 2005.

TransCanada North Bay Junction

The Board convened the RH-3-2004 proceeding in August 2004 to consider TransCanada's application to establish a new receipt and delivery point at North Bay Junction (NBJ) on TransCanada's Mainline. The Board also considered alternative proposals from other parties for the establishment of additional receipt and delivery points. In its December 2004 decision, the Board approved NBJ as a new receipt and delivery point and directed that the corresponding tolls to and from the point be set in accordance with the established tolling methodology. The Board denied proposals to establish new receipt and delivery points

at Parkway (near Oakville, Ontario) and at St-Nicolas (near Quebec City, Quebec). The Board also denied a proposal to designate domestic delivery areas as receipt points for storage injection purposes. The Board found that there was insufficient information to assess the potential impacts of these alternative proposals. To facilitate the future assessment of similar proposals, the Board directed TransCanada to file, no later than 28 February 2005, proposed tariff additions codifying the information TransCanada requires, the criteria to be applied by TransCanada, and the expected timeframe required by TransCanada to evaluate and respond to proposals for new receipt and delivery points.

Westcoast Energy Inc.

The Board approved interim tolls for Westcoast for 2004 and set its application for final 2004 tolls down for hearing. As part of its consideration of the application, the Board held a pre-hearing conference in January 2004 to determine the issues to be addressed in disposing of the application as well as the appropriate process and timing to deal with the issues. In April 2004, the Board suspended the schedule for the hearing process due to parties reaching an agreement in principle on the terms of a settlement. Westcoast submitted a final settlement for 2004 and 2005 tolls in July 2004 and the settlement was approved by the Board in August 2004. In December 2004, Westcoast applied for and received approval for interim 2005 tolls and the inclusion in tolls of certain costs associated with the Southern Mainline Expansion.

Financial Audits

The Board periodically performs financial audits of regulated pipeline companies. Financial audits are an important tool to ensure compliance with regulations, orders and decisions as well as documenting the extent to which pipeline companies operate with due regard for economy and efficiency. Financial audits provide a means for the Board to determine whether cross-subsidies have been made at the expense of tollpayers and to enhance its knowledge of the company and its operations.

In 2004 financial audits were completed on the Mainline operations of TransCanada PipeLines Limited, Enbridge Pipelines Inc. and Express Pipeline Limited Partnership. This was a continuation of the process started in 2003 when the Board completed an audit of Maritimes and Northeast Pipeline Management Limited as the first step in ensuring that all NEB-regulated major pipeline companies are audited regularly. This will enable the Board to maintain current information in the Board's audit files on those companies.

POWER LINE FACILITIES

The NEB rendered one decision on proposed international power lines during 2004.

The Board denied an application by Sumas Energy 2, Inc. (SE2) to construct the 8.5 kilometre Canadian portion of an international power line (IPL) originating at the Canada/United States international boundary near Sumas, Washington and running to a BC Hydro substation in Abbotsford, British Columbia. The IPL would have permitted SE2 to transport electricity from a proposed Power Plant to be constructed in Sumas to BC Hydro's substation.

The Board decided that it could not conclude that the IPL would be in the Canadian public interest and would be required for the present and future public convenience and necessity. After identifying and weighing the benefits and burdens in Canada of the proposed IPL and Power Plant, the Board concluded that, on balance, the burdens of the IPL outweighed the benefits.

The Board determined that the IPL and Power Plant would not have substantial benefits for Canadians or for the local and regional communities, even if all benefits were realized.

The Board found that the burdens in Canada associated with the IPL and Power Plant would be numerous and real. Most would be borne almost entirely by the local and regional communities, whereas the benefits would be either external to these communities or negligible in value.

The Board considered the application during 39 days of public hearings over the course of 7 months in Abbotsford, BC.

ACTIVITY IN FRONTIER REGIONS

In 2004, the greater part of the exploratory drilling and geophysical programs were in the Mackenzie Delta and Central Mackenzie regions. Geological and geophysical activity levels remained comparable to 2003, while drilling activities decreased slightly.

The Board continued to assess applications and monitor approved activities and facilities through inspections of frontier projects. Activity was mostly related to the development of producing fields and exploratory drilling. Production continued from the Liard field to the Fort Nelson Gas Plant in 2004, despite a change in operators. Production operations also continued from the Ikhil gas field, the Norman Wells oil field, the three producing gas fields in the Fort Liard region and the combined oil and gas field in the Cameron Hills region.

During 2004, the Board made four Commercial Discovery Declarations pursuant to the NEB and CPR Acts. Three of the Commercial Discovery Declarations were in the Mackenzie Delta region and the fourth was in the southern NWT. The Board also made three Significant Discovery Declarations in the southern NWT pursuant to the NEB and CPR Acts.

Offshore drilling activity in the Beaufort Sea region has been absent for 13 years. Devon Canada Corporation is proposing to conduct a four well drilling program in its exploration license 420 area. Federal regulators and the Inuvialuit developed a coordinated environmental review process which met the requirements of both the Inuvialuit Final Agreement and the *Canadian Environmental Assessment Act*. The NEB was the lead responsible authority for the preparation and review of the comprehensive study report which is the federally required environmental assessment for Devon's proposed program. The NEB's environmental review is expected to be completed in early 2005. Technical review of Devon's proposed drilling program will be conducted when Devon submits its Drilling Program Approval application, expected in early 2005. Devon hopes to drill the first of four wells in the winter of 2005/06.

REGULATORY COOPERATION IN THE NORTH

Implementation of the Cooperation Plan continued through 2004, with ongoing involvement by the 12 agencies with responsibilities for a pipeline. The Northern Gas Project Secretariat, established pursuant to the Cooperation Plan to support the review of the Mackenzie Gas Project and provide a public window on the project, continued its operations from Yellowknife and opened an office in Inuvik in April 2004. Formal applications for the Mackenzie Gas Project were filed by Imperial Oil Resources Ventures Limited on behalf of itself and its partners in October 2004. See the previous Pipelines Facilities section for further details.

PREPARING FOR THE FUTURE

Liquefied Natural Gas (LNG) Activities

In May 2004, Gaz Métro Limited Partnership, Gaz de France and Enbridge Inc. submitted a project description to the Canadian Environmental Assessment Agency (Agency) for the development of their Rabaska Project. The project, proposed for the Ville Guay/ Beaumont area of the Province of Quebec, includes a terminal comprising two storage tanks, a marine jetty to receive LNG tankers, pumping, compression and vaporizing facilities and a pipeline of approximately 50 kilometres in length to connect the terminal to

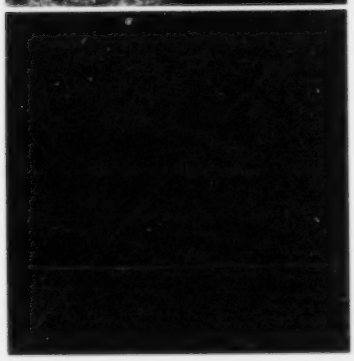
the existing facilities of Gazoduc Trans Québec & Maritimes Inc. in St. Nicolas.

The Rabaska Project is subject to a comprehensive study under the *Canadian Environmental Assessment Act*. The NEB, Fisheries and Oceans Canada, Transport Canada and the Canadian Transportation Agency are the responsible authorities that shall ensure that an environmental assessment of the project is undertaken. In October 2004, the responsible authorities submitted their report entitled *Rabaska Project - Environmental Assessment Track Decision Report* to the Minister of the Environment with a recommendation that the Rabaska Project environmental assessment be undertaken by means of a panel review. In anticipation of the Minister's decision, the NEB is discussing options with the Agency and the responsible authorities to further assist in streamlining the conduct of the Rabaska Project review process.

In October 2004, the NEB determined that it is not likely to be a responsible authority for the proposed Énergie Cacouna Project involving facilities for the importation, storage, and regasification of LNG at Gros-Cacouna, Quebec.

In preparation for potential applications for LNG facilities, Board staff has been meeting with regulatory experts at the Federal Energy Regulatory Commission (FERC) in the United States to discuss FERC's regulatory processes and to develop a better understanding of the key issues to examine in assessing an application for LNG facilities. Staff also visited an operating LNG facility in the United States to learn more about the safety and operational aspects of such facilities.

In February 2004, Board staff participated in an LNG workshop hosted by Environment Canada in Halifax which focussed primarily on sharing regulatory experiences regarding environmental issues for LNG facilities in North America. A second LNG workshop for federal and provincial departments and agencies with an interest in LNG facilities is being organized by Board staff in cooperation with the Nova Scotia Department of Energy. This workshop will focus on what regulators need to know when examining the safety and technical components related to the construction and operation of an LNG facility and will be held in Montreal in January 2005.



In order to keep Canadians informed about trends and issues in energy markets on an ongoing basis, the Board conducts extensive market monitoring for all of the commodities it regulates. This overview provides a summary of Canadian energy supply, consumption, production, prices, and trade over the past five years, with a focus on 2004. The Appendices, prepared as a companion document to this Annual Report, provide details on supply and disposition of crude oil, natural gas, natural gas liquids and electricity, as well as on industry activity, facility certificates, orders and licenses for exports and pipeline financial information (see the List of Appendices in Supplement VI).

In 2004, Canadian energy markets were characterized by high and volatile commodity prices, continuing the trend experienced in 2003. Since most energy commodities are traded in US dollars, Canadian commodity prices would have been even higher if not for a 10 percent appreciation in the Canadian to US dollar exchange rate. The year was also marked by record industry activity levels, as measured by the active drilling rig count and the number of wells drilled.

Underpinned by the largest oil demand growth in several years and the influence of rising geopolitical tensions, world crude oil prices averaged US$41.50 for West Texas Intermediate (WTI), some 34 percent higher compared with 2003. WTI began the year at US$32.50 per barrel, but reached a peak of over US$56 per barrel in late October, before easing to US$42 by year-end.

Domestically, Canadian crude oil markets saw the continuation of a trend whereby declining conventional oil production in the Western Canada Sedimentary Basin (WCSB) was more than offset by expanding production from the oil sands. This expanding production, and the increasing recognition outside of Canada of the vast size of Alberta's oil sands reserves, led to significant interest in oil sands development from foreign entities, especially China. On the East Coast, production declined slightly due to equipment problems at the Terra Nova Field, offshore Newfoundland, near year-end.

Canadian production of natural gas remained essentially flat in 2004 reflecting the maturing state of exploration and development within the WCSB. In 2004, 15 674 gas wells were drilled in Canada setting a new record, for the second consecutive year. However, due to the continuing trend of lower initial productivity exhibited by new wells, production remained at 2003 levels. At Sable Island, offshore Nova Scotia, gas production for 2004 averaged 11.54 $10^6 m^3$ (400 MMcf/d), a seven percent decrease from 2003.

The absence of significant growth in North American gas production, combined with high demand for gas and the supporting effect of higher crude oil prices contributed to natural gas prices remaining above $5.00 per gigajoule across most Canadian and U.S. markets in 2004.

In 2004, Canadian electricity markets featured continuing efforts to restructure the industry. Nova Scotia put in place its restructuring plans with the passage of its *Electricity Act (2004)* while New Brunswick opened its markets, providing competitive access to wholesale customers and large industrial customers. The Ontario government passed its *Electricity Restructuring Act*, a main feature of which was the creation of the Ontario Power Authority, with responsibility for ensuring future power supplies for Ontario. The Ontario government also set out plans to phase out its coal-fired generation by the end of 2007.

The final report of the Canada-U.S. Task Force examining the August 2003 blackout recommended, among other things, that mandatory reliability standards be put in place. In anticipation of mandatory standards, various industry and government agencies in Canada and the U.S. have begun administrative actions to address the implementation and operation of an Electric Reliability Organization (ERO). In December 2004, the NEB participated in a joint Canada-U.S. workshop which examined how Canadian interests would be represented in the ERO.

Electricity production was down slightly. Despite improved water conditions in many parts of Canada, hydro generation declined by two percent as hydro provinces conserved water in order to rebuild depleted reservoirs. Higher prices for fuel led to a nine percent decrease in thermal generation, while nuclear generation gained 20 percent over the previous year. On the demand side, mild weather through much of the year suppressed cooling and heating demand, resulting in reduced imports and a five percent increase in exports compared with 2003.

ENERGY AND THE CANADIAN ECONOMY

In 2004, the energy industry accounted for about six percent of Canada's Gross Domestic Product (GDP) and employed just over 300 000 people, representing approximately 1.8 percent of the Canadian labour force. Energy export revenue of approximately $58.9 billion accounted for an estimated 15 percent of all Canadian exports, virtually unchanged from 2003.

The weakening U.S. dollar slowed the demand for Canadian exports in 2004 because of the reduction in U.S. purchasing power. However, Canada's real GDP gained three percent compared with two percent in 2003. This increase was supported by low interest rates creating strong domestic demand. During the 2000 to 2004 period, Canada's real GDP increased an average of 2.6 percent per year.

Total Canadian energy production (Table 1) increased by slightly more than two percent in 2004 compared with a decline of 0.2 percent in 2003. Petroleum and natural gas accounted for over 75 percent of total energy production. While petroleum production, the largest contributor to the rise in total energy production this year, experienced a 2.2 percent increase, export revenues remained similar to 2003 levels because high oil prices were offset by the appreciating Canadian dollar. Hydroelectric production declined for the second year in a row as producers recovered from drought conditions. The declining trend in coal production moderated in 2004, reflecting a surge in export coal demand that led to the opening of several new mines. "Renewables and Other" energy sources increased by nearly four percent. Nuclear energy production, the second largest contributor to the overall

TABLE 1: DOMESTIC ENERGY PRODUCTION BY ENERGY SOURCE (PETAJOULES)

	2000	2001	2002	2003	2004[a]
Petroleum[b]	5 672	5 712	5 986	6 323	6 460
Natural Gas	6 405	6 536	6 559	6 351	6 387
Hydroelectricity	1 272	1 182	1 245	1 198	1 189
Nuclear	794	837	824	817	987
Coal	1 510	1 533	1 430	1 326	1 320
Renewables and Other	627	588	631	633	657
Total	16 280	16 388	16 675	16 648	17 000

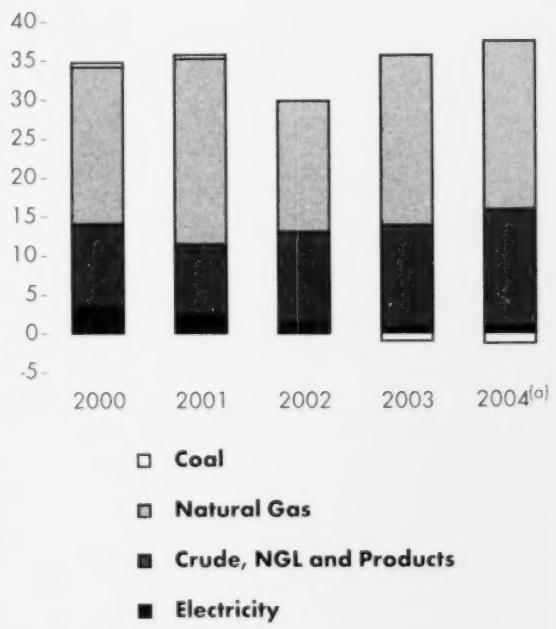
(a) Estimates
(b) Petroleum includes crude oil and gas plant natural gas liquids (NGL's)
(c) Includes steam, solid wood waste, spent pulping liquor and annual firewood
Source: Statistics Canada, NEB

TABLE 2: DOMESTIC ENERGY CONSUMPTION[a] (PETAJOULES)

	2000	2001	2002	2003	2004[b]
Space Heating	1 934	1 885	1 970	2 065	2 111
Transportation	2 280	2 240	2 250	2 242	2 165
Other Uses[c]	3 162	3 050	3 164	3 298	3 397
Non-Energy[d]	790	863	894	903	924
Electricity Generation[e]	1 804	1 841	1 911	1 850	1 832
Total	9 971	9 879	10 189	10 358	10 425

(a) Includes consumption of imported energy
(b) Estimates
(c) Includes energy used for space cooling and ventilation as well as a variety of uses in the industrial sector
(d) Includes energy used for petrochemical feedstocks, anodes/cathodes, greases, lubricants, etc.
(e) Includes producer consumption an losses as well as nuclear energy conversion requirements
Source: Statistics Canada, NEB

FIGURE 2: NET ENERGY EXPORT REVENUES (BILLION C$)



(a) Estimates

overall rise in production, increased over 20 percent, or 170 petajoules. This increase can be attributed to three refurbished Ontario nuclear generators that came back on line late in 2003 and early 2004.

Preliminary estimates indicate that domestic energy consumption increased by nearly one percent in 2004. During the 2000 to 2004 period, Canadian energy consumption increased an average of 1.1 percent per year, compared with the rising average real GDP rate of 2.6 percent per year. This indicates a continued decline in the energy intensity of the economy (Table 2).

In 2004, the gross export revenues from natural gas, petroleum, electricity and coal were almost $59 billion, about one percent lower than 2003 levels. Canada's energy trade surplus (the value of energy exports minus value of energy imports) was $36.2 billion, up from $34.6 billion in 2003 (Figure 2). This gain can be largely attributed to a decline in crude oil, NGLs and petroleum products imports.

UPSTREAM OIL AND GAS ACTIVITY

After a record year in 2003, a majority of upstream indicators continued to show growth in 2004 in response to high commodity prices throughout the year. A record 21 671 wells were drilled in the WCSB in 2004 which exceeded the previous 2003 high of 19 957 wells drilled (Figure 3). High natural gas prices kept the focus on drilling for natural gas through 2004, with gas well completions making up 72 percent of all wells completed. In 2004, oil well completions were only two percent higher than 2003, in spite of the oil price increases throughout the year. The proportion of dry wells drilled remained at six percent. Increased well counts are also due to continued advancements in drilling technology and demand growth in North America.

In 2004, high oil and gas prices helped to increase Western Canadian rig activity, with the average monthly rig count increasing five percent to 414 operating rigs. New drilling rigs continue to be built in response

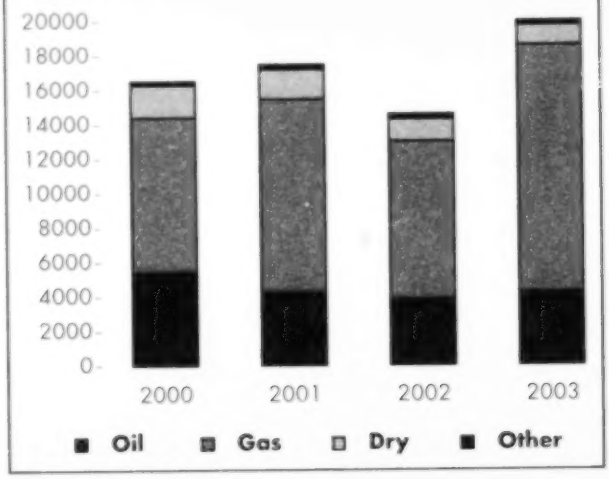
to the high demand in the field; however, there are related challenges, such as ensuring the availability of sufficient personnel to operate the increasing number of rigs and the availability of sufficient geoscience and engineering professionals to identify additional drilling prospects. The most active drilling areas continue to be Northeastern British Columbia, the Alberta Foothills, Southeast and Central regions with drilling activity showing increases of 16, 32, 14 and 11 percent respectively from 2003.

Competition for land rights softened in 2004, with revenue from land sale bonuses collected by the Western Canadian provinces decreasing to $1.4 billion, down 16 percent from 2003. The average price per hectare remained at $346 in 2004. Record Alberta sales partly account for this, along with the heightened interest in areas involving natural gas from coals (NGC) and the oil sands. The Foothills and Southeast regions of Alberta also continued to attract interest, while in British Columbia and Saskatchewan land acquisitions were less than in 2003. The results of a Call for Bids for exploration rights in Newfoundland and Labrador showed renewed interest in the Jeanne d'Arc Basin, with all five parcels receiving bids for a total commitment of more than $71.1 million.

Seismic survey activity continued to decrease in 2004, with the number of active crews down 24 percent over the previous year. This level of activity is well below the five-year average and represents the latest actions by producers to put emphasis on exploration and development in areas that have already been surveyed. Seismic activity in Western Canada was focused in the Southwest and Central regions of Alberta, as well as in the Northeast region of British Columbia. On the East Coast, there were a total of 16 seismic crews working in the area during 2004. On average, there was a least one crew count per month. Overall, this represents approximately four percent of the seismic survey activity that occurred in Canada.

Capital expenditures by the conventional oil and gas industry in Canada totaled approximately $24.4 billion in 2004, a jump of 2.5 percent from 2003. Sustained high prices for natural gas and crude oil and increased drilling activity resulted in increased capital expenditures.

FIGURE 3: NUMBER OF WELLS DRILLED



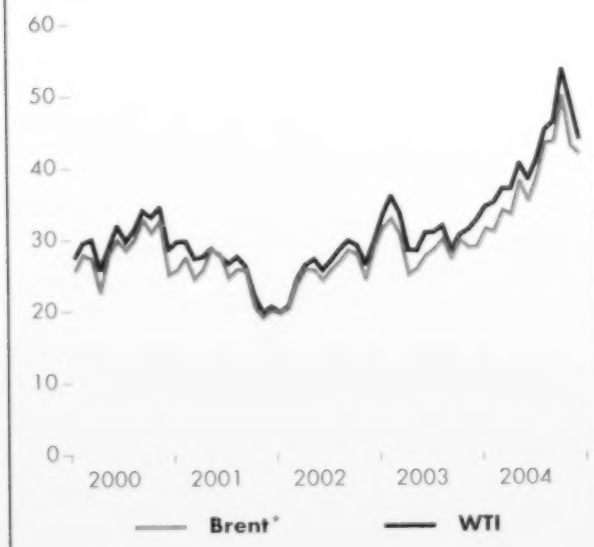
CRUDE OIL AND NATURAL GAS LIQUIDS

International Markets

World crude oil prices were very high in 2004 underpinned by the largest oil demand growth in several years and the influence of rising geopolitical tensions (Figure 4). West Texas Intermediate began the year around US$32.50 per barrel with the May average over US$40 against a backdrop of extremely tight worldwide inventories and political tensions in Saudi Arabia, Venezuela, Nigeria and Iraq. WTI reached an average of nearly US$46 in September reflecting ongoing hostilities in Iraq and fears that the political and financial crisis surrounding the large Russian oil producer, Yukos, could result in reduced output. By late October, WTI reached its peak for the year, exceeding US$56 per barrel, when Hurricane Ivan significantly affected Gulf of Mexico production. Prices then declined following announcements of an improving inventory situation and closed the year at approximately

US$43.50 per barrel. WTI averaged about US$41.50 in 2004, an increase of more than US$10 per barrel (or 33 percent) over 2003.

FIGURE 4: WTI AND BRENT OIL PRICES (US$/BBL)



* Brent is the common benchmark for European crude oil pricing.

TABLE 3: CANADIAN PRODUCTION OF CRUDE OIL AND NATURAL GAS LIQUIDS (THOUSAND CUBIC METRES PER DAY)

	2000	2001	2002	2003	2004(e)
Conventional Light (East)	23.6	24.3	46.0	54.1	50.6
Conventional Light (West)	108.3	103.9	96.0	92.1	87.5
Synthetic (Upgraded Bitumen)	50.1	54.7	69.1	82.7	99.3
Pentanes Plus	27.3	25.8	25.2	25.8	24.2
Total Light	209.3	208.7	236.3	254.7	261.6
Conventional Heavy	89.0	90.9	88.0	86.7	86.6
Non-Upgraded Bitumen	44.4	47.7	47.4	51.1	55.8
Total Heavy	133.4	138.6	135.4	137.8	142.4
Total Crude Oil and Equivalent	342.7	347.3	371.7	392.5	404.0
Natural Gas Liquids	99.8	92.9	96.8	97.7	95.1

(e) Estimates

The Organization of Petroleum Exporting Countries (OPEC) held five meetings in 2004 to review the worldwide supply and demand situation and establish its production quotas. In February, OPEC announced a reduction in its quotas of 1.0 million barrels per day, to 23.5 million barrels per day, effective 1 April. At its June session, OPEC agreed to increase quotas by 2.5 million barrels per day in two stages to 26.0 million barrels per day. OPEC further increased its quotas at its September meeting to 27.0 million barrels per day. At its last meeting of the year in December, OPEC decided to maintain its quotas but will meet early in 2005 to review market conditions in advance of the seasonal downturn in demand.

Canadian Production and Reserves Replacement

In 2004, Canadian production of crude oil and equivalent established a new record, with production estimated at 404 000 m^3/d, up by nearly three percent from 2003 levels. This growth reflects increased synthetic and bitumen production from Western Canada which offset declining WCSB conventional crude oil production and a slight decline in Eastern Canada offshore production (Table 3).

Production in offshore Newfoundland and Labrador was down by about seven percent to 50 500 m^3/d, reflecting the shut-in of the Terra Nova Field for 35 days late in the year, following an oil spill. In Western Canada, crude oil and equivalent supply increased by about 2.8 percent in 2004. Conventional light crude oil production declined by five percent. This is a continuation of a long-term trend that reflects natural decline in light oil reservoirs in the WCSB. Conventional heavy crude oil production levels remained virtually unchanged, but are down some four percent below peak production levels reached in 2001.

While remaining established reserves are reduced by production each year, new discoveries, extensions to existing pools and revisions to reserves estimates in existing pools usually add to reserves. From 1999 to 2003, on a cumulative basis, additions to established

reserves of conventional light and heavy crude oil replaced 94 percent of production (Table 4).

The NEB's estimate of total remaining Canadian conventional crude oil and crude bitumen reserves at year-end 2003 (the last year for which complete data is available) is 28.4 billion cubic metres, which is essentially unchanged from 2002 (Table 5). This means that reserves additions fully offset production for the year. Estimates of remaining conventional crude oil reserves in Canada decreased by 5.1 percent to 655 million cubic metres for 2003, but this was offset by an increase in estimates for in situ bitumen in Alberta's oil sands areas.

Oil Sands

Estimates of initial reserves of crude bitumen for year-end 2003 (latest available) indicate an increase of 62 million cubic metres while bitumen production totalled 56 million cubic metres, thus, remaining established reserves increased slightly to 27.73 billion cubic metres (Table 5). The existence and importance of this very large reserve in the context of world oil supply became more widely acknowledged in 2004, following official recognition in late 2003 by the *Oil and Gas Journal* in its annual summary of world oil reserves.

The oil sands are becoming an increasingly important source of crude oil production for Canada, with 2004 production of 155 000 m^3/d, up by 16 percent over 2003, and making up some 38 percent of total crude oil and equivalent production in Canada (Figure 5). Production would have been somewhat greater except for an interruption in operations at the Scotford Upgrader located near Edmonton, Alberta. One of two production trains was shut in for maintenance and repairs from October 2004 through January 2005, reducing overall throughput by 35 percent, or about 11 000 m^3/d.

Encouraged by sustained higher prices for crude oil in 2004 and the prospect of tighter world oil markets over the longer term, industry announced several new oil sands projects and project expansions in Alberta. There was also significant interest expressed by foreign entities regarding participation in developing the oil sands.

Shell Canada Limited announced it will spend $4 billion to nearly double bitumen production from

TABLE 4: CONVENTIONAL CRUDE OIL RESERVES, ADDITIONS AND PRODUCTION 1999-2003 (MILLION CUBIC METRES)

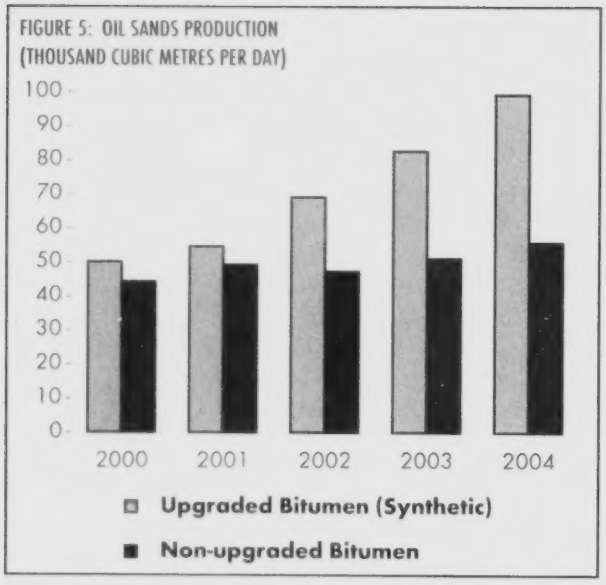
	1999	2000	2001	2002	2003	Total
Additions[a]	129	78.8	35	88.1	53.1	384
Production	78	79.1	84	81.0	85.0	407
Total Remaining Reserves	702	700.0	680	690.0	655.0	
Total in Millions of Barrels	4 414	4 425.0	4 346	4 348.0	4 120.0	

(a) Terra Nova reserves added in 1999 and White Rose reserves added in 2002

TABLE 5: ESTIMATES OF EXTABLISHED RESERVES OF CRUDE OIL AND BITUMEN AT 31 DECEMBER 2003 (MILLIONS OF CUBIC METRES)

Conventional Crude Oil	Initial	Remaining
British Columbia[a]	124.4	22.2
Alberta[b]	2 634.1	253.9
Saskatchewan	823.2	176.9
Manitoba[c]	42.0	5.9
Ontario[c]	14.7	2.0
NWT and Yukon:		
Arctic Island and Eastern Arctic Offshore[c]	0.5	0.0
Mainland Territories - Norman Wells	52.9	18.1
Nova Scotia - Cohasset and Panuke[c]	7.0	0.0
Newfoundland - Hibernia and Terra Nova and White Rose[c]	239.0	176.0
Total	3 937.8	655.0
Total in Millions of Barrels	24 766.0	4 119.5
Crude Bitumen		
Oil Sands - Upgraded Crude[d]	5 590.0	5 130.0
Oil Sands - Bitumen[d]	22 800.0	22 600.0
Total	28 390.0	27 730.0
Total in Millions of Barrels	178 857.0	174 699.0
Total Conventional and Bitumen	32 327.8	28 385.0
Total in Millions of Barrels	203 623.0	178 818.5

(a) British Columbia Ministry of Energy & Mines and NEB common database
(b) Alberta Energy & Utilities Board and NEB common database
(c) Provincial Agencies or Offshore Board estimates
(d) Canadian Association of Petroleum Producers
(e) Bent Horn abandoned 1996
Note: Totals may not add due to rounding.



the Athasbasca Oil Sands Project to about 45 000 m^3/d by 2010. Shell is planning to implement a number of projects to improve efficiency at the Muskeg River mine and Scotford upgrader, as well as further expansion of these facilities.

Husky Energy Inc. plans to proceed with a $500 million steam-assisted-gravity-drainage (SAGD) project at Tucker Lake. This project is expected to produce 4 800 m^3/d of bitumen when it comes on stream in 2006.

Suncor Energy Inc. approved funding for a $2.1 billion upgrader expansion, which includes the addition of new coking facilities. Suncor also plans to spend $1.5 billion to increase production at its in-situ and mining and extraction facilities, with total capacity expected to reach 56 000 m^3/d by 2008.

Canadian Natural Resources Limited approved plans for a $250 million cyclic-steam-stimulation (CSS) project at Primrose, designed to add an incremental 7 900 m^3/d of bitumen production by 2007.

During 2004, a number of initiatives were undertaken to secure additional markets and transportation access in the United States for expanding oil sands production. Suncor will spend $300 million to modify the company's Denver refinery, to meet clean fuels regulations and to accommodate up to 2 400 m^3/d of oil sands sour crude blends. Seeking to provide a dedicated market for some of its growing bitumen production, EnCana Midstream & Marketing has signed a Memorandum of Understanding (MOU) with The Premcor Refining Group Inc., to conduct a preliminary design and engineering study of the modifications necessary to upgrade Premcor's existing refinery at Lima, Ohio to process an estimated 31 700 m^3/d of blended EnCana heavy oil. In December, Enbridge announced plans to proceed with its Spearhead pipeline project, subject to regulatory approval. By reversing the flow of the line, which historically operated in south-to-north service between Cushing, Oklahoma and Chicago, Illinois, the Spearhead Pipeline will provide crude oil transportation service from the Enbridge main line system at Chicago to the storage and refining hub at Cushing. In a similar vein, Canadian oil firms are in talks with ExxonMobil Corporation about reversing the flow of its pipeline system that currently runs to Illinois from Texas.

For further information on oil sands, readers may refer to the Board's May 2004 report titled *Canada's Oil Sands: Opportunities and Challenges to 2015*, which discusses the current state of the oil sands industry, its potential for growth and the major issues facing the industry. This report can be found on our Internet site at http://www.neb-one.gc.ca/energy/EnergyReports/index_e.htm#OilSands.

CRUDE OIL EXPORTS AND IMPORTS

Total crude oil exports, including pentanes plus and upgraded bitumen (synthetic crude), are estimated at 260 500 m^3/d, an increase of 14 700 m^3/d over 2003. The 2004 total consisted of 38 percent light crude oil and equivalent and 62 percent blended heavy crude oil.

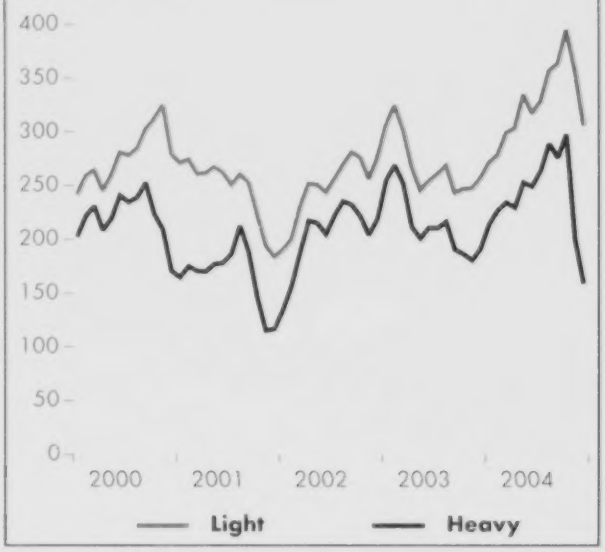
As a result of high crude oil prices throughout 2004, the estimated value of crude oil exports in 2004 was $26.1 billion, up substantially from $20.8 billion in 2003. In 2004, the estimated average light and heavy crude oil export prices were $52 and $38 per barrel ($326 and $242 per cubic metre) respectively, compared with $42 and $34 per barrel ($267 and $213 per cubic metre) in 2003 (Figure 6).

High prices for the benchmark crude, WTI, were supported by the tight light crude oil supply situation, with light sweet crude oil prices continuing to strengthen through the year reflecting the high demand for light refined petroleum products. The light/heavy price differential widened in 2004, averaging $16 per barrel ($101 per cubic metre) compared with $11.55 per barrel ($72.60 per cubic metre) in 2003. The differential increased substantially in the second half of the year, reaching nearly $25 per barrel ($158 per cubic metre) by year end. When OPEC production increased in 2004, it was in the medium to heavy sour crude oil types, putting more pressure on heavy oil prices. The situation was further exacerbated by the refinery maintenance schedule in U.S. Petroleum Administration for Defense District (PADD) II and III that increased the heavy crude oil available to the market.

In the second half of 2004, Canada became the leading export country to the U.S. for crude oil. Canada usually vies with Mexico for second place behind Saudi Arabia. High oil demand, especially during the summer gasoline season, resulted in North American refineries operating over 95 percent of capacity. The U.S. Midwest is the most significant market for western Canadian crude oil. The refining centres of Chicago, Illinois, Twin Cities, Minnesota and Toledo, Ohio consumed 51 percent of total Canadian crude oil exports (Figure 7) in 2004. These markets combined increased their demand by 4 000 m^3/d over 2003.

With conventional crude oil production declining, the increase in exports resulted primarily from higher volumes of synthetic and heavy bitumen grades. One of the largest increases in 2004 was in the refining market

FIGURE 6: LIGHT AND HEAVY CRUDE OIL EXPORT PRICES ($ PER CUBIC METRE)



of Anacortes, Washington, where demand for Canadian crude oil grew by 6 200 m^3/d, or 72 percent, mainly as a result of a shortage of Alaska North Slope crude oil.

The export market for eastern Canadian offshore production has been primarily the U.S. East Coast. In 2004, of the offshore crude oil exports, 77 percent was delivered to PADD I, 13 percent to the U.S. Gulf Coast and 10 percent to foreign markets.

In 2004, crude oil imports were 151 100 m^3/d and represented 50 percent of total refinery feedstock requirements in Canada. Crude oil requirements for the Atlantic region and Quebec were met by imports as well as volumes of East Coast domestic production. Ontario refiners received about 40 percent of their feedstock requirements from foreign sources in 2004, an increase from 34 percent in 2003.

OIL REFINING

Canadian refining capacity in 2004 was 329 800 m^3/d, a slight increase over 2003, as a result of a small expansion in Western Canada.

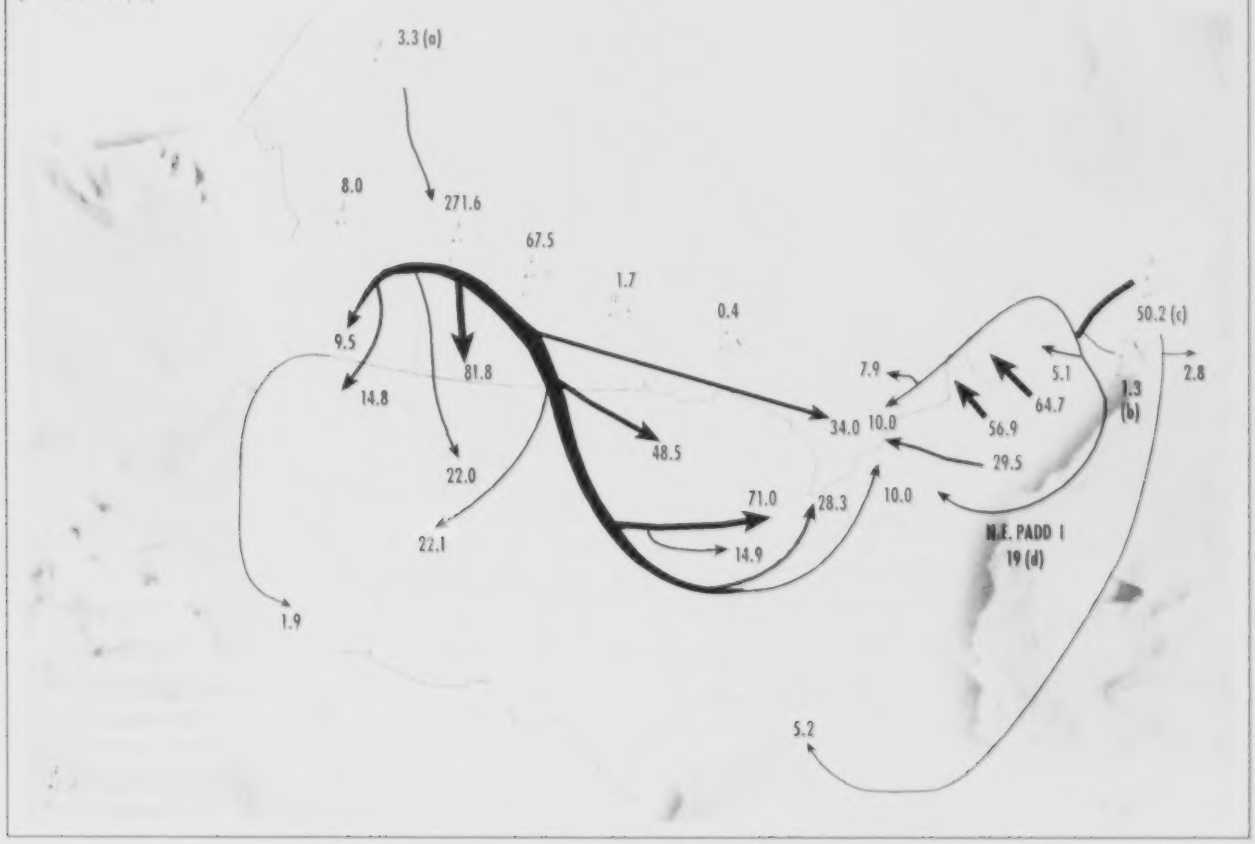
In 2004, the demand for petroleum products in Canada averaged 235 800 m³/d, a marginal increase from 2003. Refinery production of these main products declined slightly to 264 500 m³/d. Refinery receipts of domestic crude oil averaged 148 700 m³/d, reflecting the increase in refining capacity. Commercial inventories of petroleum products in Canada closed the year slightly higher than in the previous year.

Main Petroleum Product Exports and Imports

Historically, Canada has been a net exporter of main petroleum products including motor gasoline and middle distillates (jet fuel, kerosene, heating oil and diesel), exporting amounts in excess of Canadian demand. For 2004, exports of main petroleum products and partially processed oil are estimated at 56 895 m³/d, a less than one percent decrease from 2003. Refinery maintenance issues and mild temperatures in the U.S. Midwest were key contributors to this decline.

The estimated revenue from main petroleum product exports, including partially processed oil, was $5.8 billion in 2004, up from $4.9 billion in 2003. The increase is a consequence of high North American demand for gasoline and distillates resulting in record high distillate and gasoline prices in the spring. Although prices declined and stabilized during the summer, record high

FIGURE 7: CRUDE OIL AND EQUIVALENT SUPPLY AND DISPOSITION 2004
(THOUSAND M³/D)



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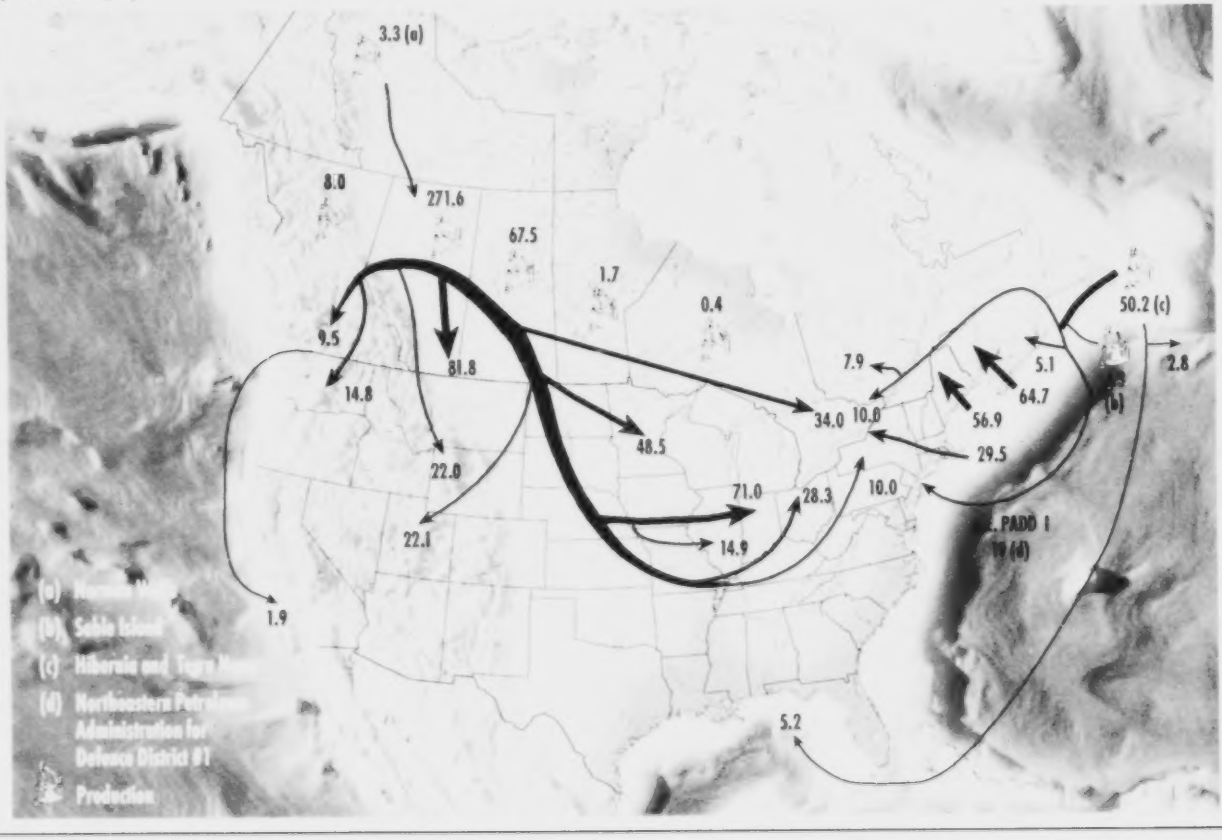


crude oil prices in the fall resulted in a subsequent surge in petroleum product prices in the month of October.

The U.S. continued to be the largest buyer of Canadian produced petroleum products, accounting for approximately 96 percent of total exports. Exports were also made to Europe, South America and Aruba. The U.S. East Coast continued to be the largest market, followed by the West Coast and the Midwest.

Imports of main petroleum products in 2004 are estimated at 27 067 m^3/d, a 13 percent increase from 2003.

Natural Gas Liquids (excluding Pentanes Plus)

Natural gas liquids (NGLs) refer to the collective stream of hydrocarbon liquids that are extracted from the natural gas stream. Principal NGLs include ethane, propane and butanes. Propane and butanes are also produced from crude oil refining processes. In Canada, approximately 86 percent of propane and 67 percent of butane supplies come from natural gas production. The term liquefied petroleum gas (LPG) refers to liquids produced mostly by refineries; that is, LPG refers to refined or liquefied propane and butanes only.

Production of NGLs from gas plants and refineries totaled 99 200 m^3/d in 2004, an increase of two percent compared with 2003. Ethane production increased by about five percent to 42 900 m^3/d. Butane and propane production remained relatively stable - both products decreased by only about one percent to 24 000 m^3/d and 32 200 m^3/d respectively. High propane prices, supported by exceptionally high crude oil and natural gas prices throughout most of the year, created the incentive for propane extraction. High demand for propane in Europe and Asia also helped keep prices high in North America. High domestic demand for blending also ensured butane extraction. Ethane extraction capacity was expanded in 2004 and production essentially matched ethane demand.

2004 NGL exports are estimated to be 28 700 m^3/d, broken down into 23 800 m^3/d of propane and 4 900 m^3/d of butane. While propane exports increased by seven percent, butane exports decreased by 13 percent. Several factors accounted for the increase in propane exports including: strong petrochemical demand along the U.S. Gulf Coast throughout most of the year; a record corn crop in the U.S. Midwest and related crop drying demand; and, heavy summer rainfall in Ontario and consequent negative impact on storage capability forced some propane volumes out of Ontario into the U.S. market. It should be noted that pressure restrictions on Cochin Pipeline, which are expected to continue until the summer of 2005, did not affect propane throughput volumes for the year overall. Butane exports declined since the domestic market, related to the strong gasoline demand, consumed most of the produced butane volumes.

The U.S. Midwest continues to be Canada's largest market for propane and butanes, accounting for about 60 percent of the total export volume. In spite of high liquids prices, with increased propane exports more than offset by decreased butane volumes, the estimated value of 2004 NGL exports was $ 2.6 billion, approximately 8 percent higher than 2003 export revenue.

NATURAL GAS

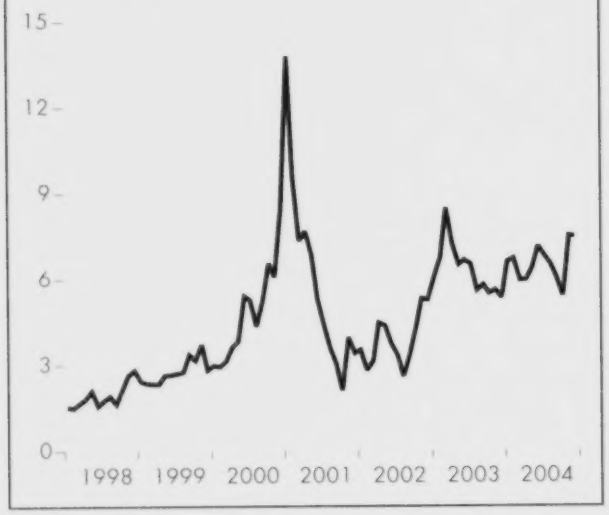
An ongoing tight balance between the supply and demand of natural gas in North America resulted in sustained high natural gas prices in 2004 at levels higher than seen in recent years. The absence of significant growth in North American gas production combined with higher crude oil prices have contributed to natural gas prices remaining above $5.00 per gigajoule across most Canadian and U.S. markets, similar to 2003 prices (Figure 8).

High natural gas prices encouraged very high levels of gas well drilling activity in Canada through 2004.

Natural Gas Demand

Total Canadian end-use natural gas demand continued to increase this year, albeit very slightly, to approximately

FIGURE 8: ALBERTA NATURAL GAS PRICES - AECO-C
($ PER GIGAJOULE)



203 million m^3/d, based on preliminary data. Modest increases in the industrial sector (including direct sales) were partially offset by lower residential and commercial sales. Warmer than normal weather conditions across much of Canada in the early spring accounted for the decline in residential usage, resulting in a decrease of about 2.3 percent in that sector. Sales to the commercial sector declined by about 4 percent. Alberta, Manitoba and New Brunswick showed the highest increases in demand.

Production

Canadian marketable natural gas production in 2004 totaled 478 million m^3/d, an increase of less than 0.5 percent. The increase in drilling levels over the last two years has resulted in maintenance of this production. A large increase was not seen this year due to the lower initial productivity of new wells brought on-line.

In 2004, Alberta accounted for 79 percent of total Canadian natural gas production, British Columbia 14 percent, Saskatchewan four percent, Nova Scotia two percent, Northwest Territories and Yukon one half percent, and Ontario less than 0.5 percent.

Reserves

The NEB's estimate of remaining marketable gas reserves at the end of 2003 (the last year for which data is available), is 1 530 billion cubic metres (Table 6). In spite of strong exploration activity in 2003, reserves replacement only amounted to 46 percent of gas production. Over the past five years, cumulative additions of marketable gas reserves replaced 83 percent of total gas production (Table 7). On a regional basis, most areas recorded growth in their initial reserves, particularly Alberta. This was primarily due to a strong exploration effort.

However, significant decreases in the initial reserves of pools offshore Nova Scotia due to poor reservoir performance resulted in the relatively low production replacement for all of Canada.

Natural Gas Exports and Imports

Net natural gas exports in 2004 increased to 88.9 billion cubic metres, an increase of 3.1 percent over 2003 (Figure 9).

In 2004, gross exports from Canada increased by 2.9 percent to 101.4 billion cubic metres, while natural gas imports were 1.1 percent higher at 12.5 billion cubic metres.

A slight increase in gas production and a moderate decrease in weather-sensitive gas demand in Canada enabled greater exports in 2004. The higher exports were primarily used to meet increased gas consumption in the United Sates for the industrial and electric power generation sectors compared with 2003.

Net exports in 2004 accounted for 51 percent of total Canadian production, a slight increase from 2003 when 49.8 percent was exported. The distribution of exports in 2004 was 49 percent to the Midwest and

Mountain regions, 25 percent to the Northeast, and 26 percent to California and the Pacific Northwest (Figure 10). About 87 percent of these exports flowed under short-term orders; the remainder of exports flowed under long-term licenses.

Greater exports combined with slightly higher natural gas prices in 2004 resulted in an increase in export revenues to $26.5 billion, a 4.3 percent increase over 2003. The net revenue from Canadian natural gas exports after accounting for a slight increase in imports was $23.1 billion, or 6 percent greater than a year ago. This reflects a 1.8 percent increase in the average export price to $6.87 per gigajoule in 2004, compared with $6.75 per gigajoule in 2003.

ELECTRICITY

Restructuring and Market Developments

Over the past decade, many North American jurisdictions have restructured their electricity markets. In the traditional market structure, a vertically-integrated utility provides three functions: generation, transmission, distribution and retail services in a given franchise area. In this structure there is often only limited access to other markets. Consumers pay regulator-approved prices based primarily on the costs of providing service. The intention of restructuring is to separate, or "unbundle," the three functions and promote competition in the generation and retail services sectors. Wholesale access to transmission grids enables local distribution companies or other large buyers to use the grid to purchase electricity from the most competitive generation sources. Retail access gives consumers a choice among suppliers because marketers are able to use distribution systems to sell electricity to end-use consumers. Prices in the restructured environment are negotiated between buyers and sellers.

Canada

The extent of restructuring in Canada varies across the country, because the regulation of the electricity industry is generally the responsibility of the provinces

TABLE 6: ESTIMATES OF ESTABLISHED RESERVES OF MARKETABLE NATURAL GAS AT 31 DECEMBER 2003 (BILLION CUBIC METRES)

	Initial	Remaining
British Columbia[a]	124.4	22.2
Alberta[b]	2 634.1	253.9
Saskatchewan	823.2	176.9
Ontario	14.7	2.0
NWT, Nunavut and Yukon		
Nova Scotia Offshore	7.0	0.0
Total	3 937.8	655.0
Total in Trillion Cubic Feet	24 766.0	4 119.5

(a) British Columbia Ministry of Energy & Mines and NEB common database
(b) Alberta Energy & Utilities Board and NEB common database
(c) Canadian Association of Petroleum Producers

TABLE 7: NATURAL GAS RESERVES, ADDITIONS AND PRODUCTION (BILLION CUBIC FEET)

	1999	2000	2001	2002	2003	Total
Additions	152	153	176	169	80	730
Production	170	176	179	179	173	877
Total Remaining Reserves	1 629	1 622	1 612	1 599	1 530	
Total in Trillion Cubic Feet	57.5	57.3	56.9	56.4	54	

FIGURE 9: CANADIAN NATURAL GAS PRODUCTION AND NET EXPORTS (BILLION CUBIC METRES)

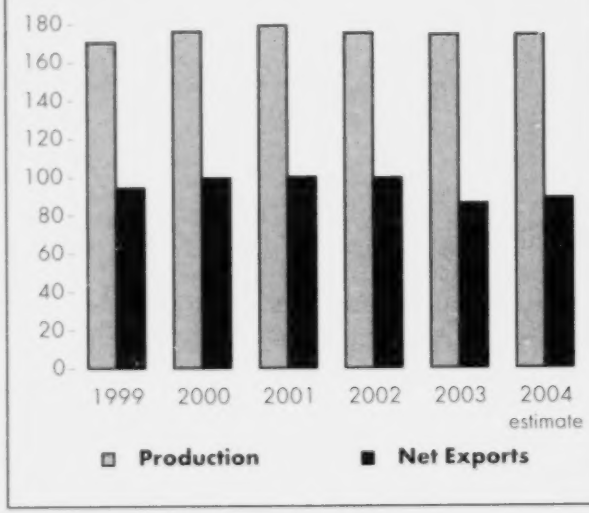
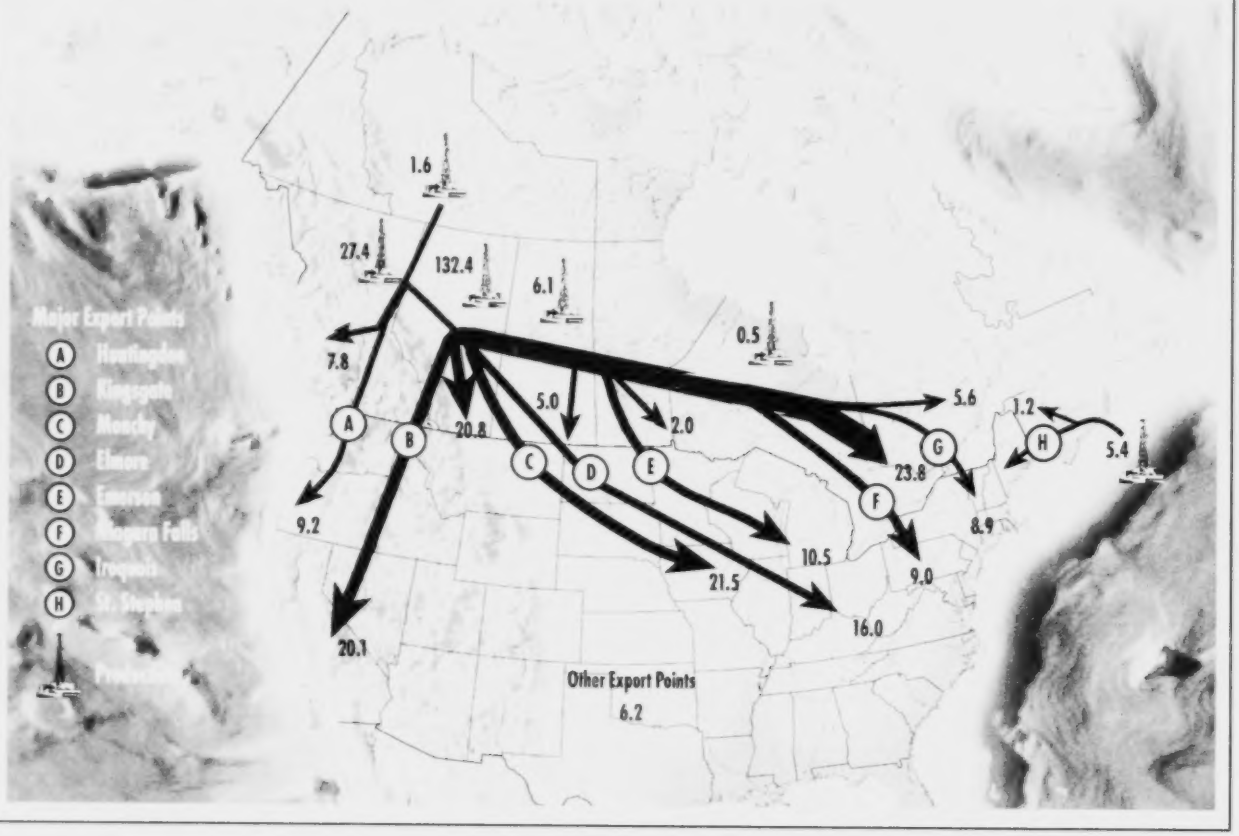


FIGURE 10: NATURAL GAS SUPPLY AND DISPOSITION
(BILLION CUBIC METRES)



and the territories. Alberta and Ontario have gone the furthest in restructuring their markets, as the opportunity exists for complete wholesale and retail access. British Columbia, Saskatchewan, Quebec and New Brunswick (starting in 2004) all have wholesale access and limited retail access, while Manitoba allows wholesale access.

With the passage of the *Electricity Act (2004)* in October, Nova Scotia put in place its restructuring plans. Starting in 2005, the Act mandates wholesale access to Nova Scotia Power's transmission system for six municipal distributors accounting for about five percent of Nova Scotia's electricity demand; Nova Scotia Power Inc., an investor-owned utility (owned by Emera) serves the remainder. The legislation also includes a renewable portfolio standard requiring that, by 2010, five per cent of Nova Scotia's electricity supply come from renewable generating capacity constructed after 2001.

New Brunswick opened its market on 1 October 2004, providing competitive access to wholesale customers and large industrial customers. New Brunswick Power was re-organized under the NB Power Holding Corporation into four subsidiaries: distribution and customer service, nuclear generation, other generation, and transmission. In addition, the New Brunswick System Operator was created, which is an independent,

not-for-profit entity with the mandate to implement and administer the market rules and ensure the reliability of the New Brunswick grid.

Since Ontario opened its market in May 2002, the provincial government has implemented a number of modifications to the initial design and operation of the market to ensure adequate electricity supplies and stability in electricity prices. After public consultation, the government took a number of actions in 2004 culminating in the *Electricity Restructuring Act* in December. A main outcome of this legislation is the creation of the Ontario Power Authority (OPA). Commencing in 2005, the OPA will be responsible for: ensuring future power supplies for Ontario by taking an active role in issuing requests for proposals; promoting clean and renewable electricity sources; promoting conservation initiatives; and developing an integrated plan for generation and transmission. The Independent Electricity System Operator will retain most of the responsibilities of the former Independent Electricity Market Operator, including those pertaining to the operation of the Ontario wholesale market and the operation and reliability of the transmission system. The Ontario Energy Board (OEB) will have regulatory oversight of the OPA.

The legislation also includes establishing a three-tier wholesale market with prices consisting of: the province's *heritage assets*, which are mainly the existing power plants operated by Ontario Power Generation; independent power production based on long-term power purchase arrangements through the OPA; and other independent power production, including bilateral arrangements and spot sales. The OEB will be responsible for establishing the price of heritage assets and putting in place a new regime for retail prices in 2005.

As part of the electricity initiatives of the provincial government, Ontario plans to phase out its coal-fired power generation by the end of 2007. During 2004, a preliminary study was undertaken to examine a potential long-term supply solution called the *Clean Energy Transfer Initiative*. The proposal involves the development of three hydro electric power sites in Northern Manitoba in the 2010–2017 time period and new transmission capacity to accommodate a transfer of 1 500 megawatts into Ontario.

United States

Important trade in electricity occurs between Canadian and U.S. jurisdictions. Although Canada is a net exporter to the U.S., mainly due to the availability of hydroelectric resources, both countries realize commercial benefits and improved electricity reliability. The major U.S. initiative to enable consumers to benefit from interregional trade has been through mandated wholesale access to transmission systems. Since 1999, the U.S. Federal Energy Regulatory Commission (FERC) has promoted the formation of Regional Transmission Organization (RTOs) as the mechanism to achieve wholesale access and enable U.S. consumers to obtain electricity reliably at the lowest price.

The process to achieve FERC-approved RTO status has proven to be complicated and some aspects, or requirements, have encountered resistance in some regions. In addition, the prospective members of specific RTOs have varied and so have time lines to achieve RTO status.

While Canadian transmission systems are not required to join an RTO, there are potential benefits that come about from having access to a broader market area, and a number of Canadian entities, have either considered or plan to join an RTO. Other Canadian entities believe their systems constitute an RTO; thus, they only need to work out those operational and business practices that would allow smooth power transfers between RTOs, or the *seams issues*.

During 2004, some progress was made on RTO formation in jurisdictions adjacent to Canada. RTOs expected to achieve approval in 2005 are the New England Independent System Operator, or ISO-New England (adjacent to New Brunswick and Quebec) and the Midwest Independent System Operator or MISO

(adjacent to Ontario, Manitoba, Saskatchewan). The timing for Grid West, formerly RTO West (adjacent to Alberta and B.C.) is less certain. Manitoba has a coordination agreement with MISO and B.C. has expressed an interest in joining Grid West through the B.C. Transmission Corporation.

Electric Reliability

Ongoing concerns about how electric reliability would be assured in a restructured environment, and specific issues raised following the August 2003 blackout in Ontario and parts of the U.S., have emphasized the call for mandatory reliability standards. Since the North American Electricity Reliability Council (NERC) was formed in 1968, reliability standards for the interconnected North American transmission grid have been voluntary. Proposed energy legislation in the U.S. contains mandatory reliability standards, i.e., standards that would be established and enforced by an Electric Reliability Organization (ERO). The ERO would have the authority to levy financial penalties for breaching any mandatory standards. In the U.S., the ERO would be subject to regulatory oversight by the FERC. In Canada, the ERO would be subject to the oversight by the appropriate regulatory authorities representing the provincial and federal interests in electric reliability. The proposed U.S. legislation (H.R. 6), which is a comprehensive package of energy proposals, has not been passed by Congress; thus the timing for the implementation of mandatory standards is uncertain.

TABLE 8: ELECTRICITY PRODUCTION[a]
(TERAWATT HOURS)

	2000	2001	2002	2003	2004[b]
Hydroelectric	353.3	328.3	345.9	332.8	329.5
Nuclear	68.7	72.4	71.3	70.7	84.2
Thermal	161.4	165.1	161.6	159.5	145.7
Total	583.4	565.8	578.7	562.9	559.3

(a) Source: Statistics Canada Energy Statistics Handbook, Table 8.2 Utility Generation of Electricity in Canada and Table 8.3 Industry Generation of Electricity in Canada
(b) Estimates

In anticipation that mandatory standards will be implemented, NERC, the industry, government energy departments and regulatory agencies in Canada and the U.S., led by the Bilateral ERO Oversight Group, have begun the administrative actions to address the implementation and operation of the ERO. For example, in December 2004, the NEB participated in a workshop with representatives from the above entities, including provincial governments and their regulators, which examined how Canadian interests would be represented in the ERO.

Electricity Production

Although water conditions improved in many parts of Canada, hydro generation remained unchanged at about 59 percent of total generation this year due to hydro provinces conserving water in order to refill depleted reservoirs (Table 8). Water conservation contributed to total electricity production declining from the previous year. Higher thermal fuel (coal, natural gas, oil) prices dampened thermal production and also contributed to a slight total electricity production decrease from 2003. Nuclear generation experienced a production gain of 20 percent from 2003.

In 2004, several provinces issued requests for proposals (RFPs) for new sources of electricity production. Provinces issued RFPs designed at increasing generation capacity, diversification and flexibility of supply. The RFPs brought in proposals for a variety of generation projects including wind, renewable energy, thermal, hydroelectric and cogeneration.

Electricity Demand

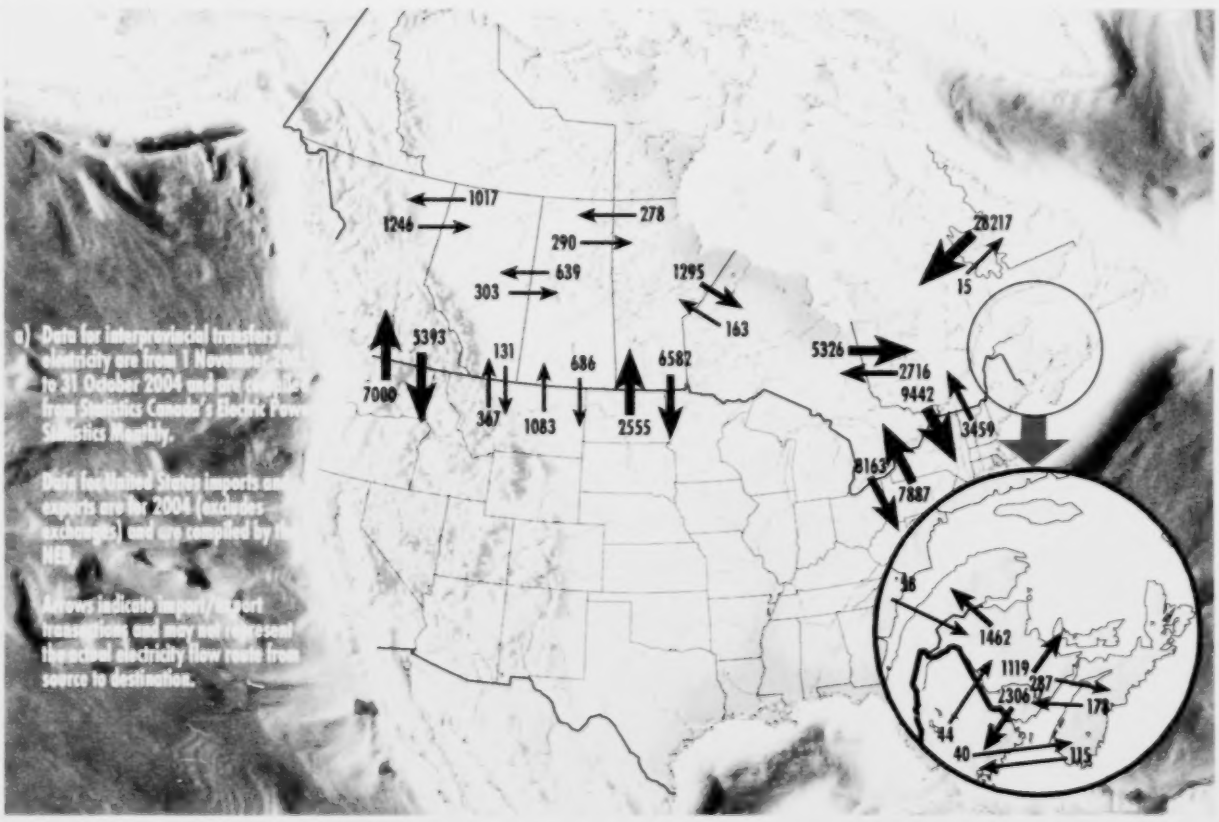
Electricity demand declined by approximately one percent in Canada from 556.4 terawatt hours in 2003 to 548.8 terawatt hours in 2004. Mild weather through the summer across the country and in the latter part of 2004 helped to suppress cooling and heating demand and helped to offset the cold winter weather in the West towards year-end. As a result, Canadians imported less electricity and were able to increase exports by nearly five percent from the previous year.

Over the past five years, domestic demand has remained fairly flat increasing 0.1 percent per annum, on average, while production has decreased over one percent per year. Reasons for the minimal change in demand include improvements in technology and the introduction of government programs to encourage smart consumption.

Exports and Imports

Canada ended 2003 and began 2004 as a net importer of electricity for the first time. A contributing factor included low water levels due to drought conditions. Water conservation measures were also implemented in order to replenish reservoirs. Therefore, hydro producing provinces were forced to rely more heavily on electricity imports. As 2004 progressed, water levels improved, and electricity exports to the U.S. increased. Canada's total exports increased approximately five percent from the previous year from 26.1 to 27.6 terawatt hours (Figure 11). An increase in total exports has not occurred for three years. Imports declined 14 percent from 2003, from 19.6 to 16.9 terawatt hours. Overall, net exports were 62 percent, or 10.6 terawatt hours, higher in 2004 when compared with the previous year.

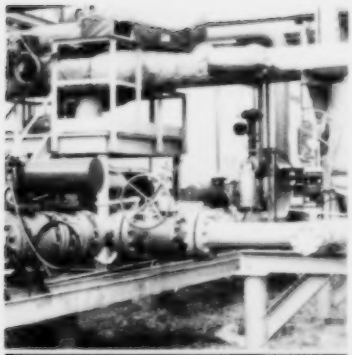
FIGURE 11: INTERNATIONAL AND INTERPROVINCIAL TRANSFERS OF ELECTRICITY[a]
(GIGAWATT HOURS)



a) Data for interprovincial transfers ... electricity are from 1 November ... to 31 October 2004 and are ... from Statistics Canada's Electric Power Statistics Monthly.

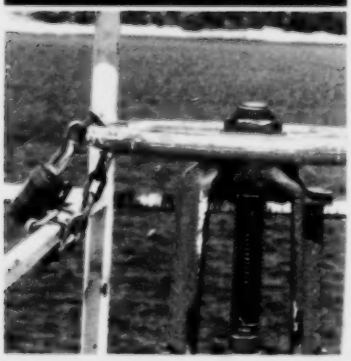
Data for United States imports and exports are for 2004 (includes ... exchanges) and are compiled by the NEB.

Arrows indicate import / export transactions and may not represent the actual electricity flow route from source to destination.



Goal 1:

NEB-regulated facilities and activities are safe and perceived to be safe.



A primary aspect of the NEB's purpose is to ensure that the regulated industry operates in a manner which ensures the safety of employees, contractors and the public at large. This is reflected in the first of the NEB's five corporate goals.

The safety of pipelines and other regulated facilities is dependent upon competent design, construction, operation and maintenance practices. Regulated companies have the primary responsibility for safety as they are the designers, builders and operators of these pipelines and facilities. This is recognized in the ongoing development of goal-oriented regulatory approaches which place the onus on companies to ensure their facilities are safe, secure and operated in an environmentally responsible manner. The NEB plays a significant role in safety by ensuring that its regulatory framework that encourages companies to maintain or improve their safety performance is in place and is linked to public expectations.

The Board ensures that safety risks associated with construction and operation of regulated facilities are identified and managed by pipeline companies. The Board does this by:

- developing regulations and guidelines for the safety, security and protection of people and property;
- assessing proposed facility applications from an engineering and safety perspective;
- ensuring that plans are in place for the implementation of appropriate mitigative measures, where necessary;
- monitoring construction and operations through inspections, audits and construction progress reports to verify that regulatory requirements have been and will continue to be met;
- assessing safety practices and procedures under the NEB mandate as well as through the *Canada Labour Code* on behalf of HRSDC;
- investigating incidents with the intent of preventing future similar occurrences;
- meeting with regulated companies to review and assess the adequacy of their integrity management programs;
- issuing safety advisories; and
- where necessary, conducting inquiries or formal investigations into safety issues.

MONITORING COMPLIANCE

Inspections

The NEB monitors the pipelines and facilities it regulates from construction through to abandonment. Inspection, safety and conservation officers verify compliance with:

- legal requirements set out within the COGO Act, the NEB Act, and the *Canada Labour Code* as well as within their subordinate legislation;
- commitments set out in the application and made during proceedings; and
- conditions of the project approval.

NEB inspection officers conduct inspections during the construction and operation of facilities to assess and assure compliance. Inspections are also conducted along existing pipeline systems to assess whether third party excavation work is being completed in compliance with the NEB *Pipeline Crossing Regulations*. In 2004, NEB inspection officers carried out 17 safety and engineering inspections on NEB-regulated projects under construction, 100 safety inspections on operating NEB-regulated facilities, and 6 crossing inspections.

On frontier lands, conservation and safety officers conduct inspections related to geophysical and drilling programs as well as production operations to verify compliance with the approved program and relevant regulations. Occupational safety and health matters are also addressed during these inspections. In 2004, conservation and safety officers conducted 84 inspections of frontier activities and facilities.

The NEB has not issued regulations regarding the construction and operation of international power lines. At present, inspections are conducted to verify compliance with the conditions attached to the Board Order or Certificate allowing the international power line to be built.

The NEB supports a cooperative approach to compliance, working with companies to ensure that safety commitments and requirements are met. The NEB promotes safety training for company and contractor construction personnel to ensure that crews understand project safety requirements and the NEB's responsibility to monitor compliance. Non-compliance situations are handled in the first instance by obtaining an immediate and voluntary correction by the company. If a situation cannot be corrected immediately or if additional information is required from a company, officers may ask for a written assurance of voluntary compliance.

Inspection officers appointed under the NEB Act can issue a stop work order where there are reasonable grounds to believe that a hazard to the safety of the public or employees of a company or a detriment to property or the environment is being or will be caused by the construction, operation, maintenance or abandonment of a pipeline, or any part of a pipeline or an excavation activity or the construction of a facility. No such orders were issued by NEB inspection officers in 2004.

The NEB tracks the extent to which companies comply with the conditions on Board Orders or Certificates and the effectiveness of those conditions in meeting safety requirements. The NEB also uses this information to improve the clarity and effectiveness of conditions that it places on its approvals. The Environment and Safety Information Management System (ESIMS) is a tool used by Board staff to track and monitor conditions placed on approvals and mitigative measures for effectiveness and to report on the achievement of desired end results. Information from inspections and audits is entered into ESIMS, providing NEB staff access to relevant information and the ability to analyse trends and performance.

Management System Audits

The Board conducts management system audits on NEB-regulated facilities to evaluate compliance with the *Onshore Pipeline Regulations* (OPR-99) and

Processing Plant Regulations (PPR). Through interviews with company staff, document review and on-site verification, Board staff evaluate programs and processes that operating facilities have in place to meet the intent of goals within the OPR-99 and PPR.

During 2004, the Board continued the implementation and development of its safety audit program. The Board's audit of a company's safety program verifies that the company has in place the following components: safety policy, regulatory planning, procedures, and training, as well as implementation of these program elements. The company's approach to evaluating its safety performance and taking necessary corrective action is also examined, along with the company's approach to performing a management review of its overall safety program.

In 2004, four management system audits were conducted by the NEB, one under the PPR and three under the OPR-99. One of the audits also evaluated compliance with applicable regulations under the COGO Act and the *Canada Labour Code, Part II*. Final audit reports are accessible to the public upon request to the Board. In general, the companies that were audited took proactive steps in developing the elements of a safety program. The audits did identify some deficiencies in the implementation of certain safety program elements in some of the audited companies. Plans to correct those deficiencies were subsequently submitted to the Board. The NEB also followed up on audits conducted in previous years by reviewing the corrective actions taken by companies. The purpose of the follow-up was to verify that action taken was adequate and that compliance to applicable regulatory requirements had been achieved, thereby completing the audit cycle.

Emergency Management

The NEB's primary role during an emergency situation is to monitor the company's response, ensuring that all reasonable actions are undertaken to protect employees, public safety and the environment. As part of its monitoring role, the NEB verifies that all regulated companies have adequate emergency response plans that mitigate any negative effects resulting from oil spills or natural gas leaks. Emergency response plans and manuals are examined during audit to ensure that appropriate procedures are in place. The NEB also encourages and participates in tabletop and full-scale emergency response exercises sponsored by pipeline companies.

INCIDENT INVESTIGATION

Certain events must be reported to the NEB as they occur. These events are collectively referred to as *incidents*. The reporting requirements for incidents for companies regulated under the NEB Act are found within the OPR-99 and PPR, and in conditions attached to Board Orders or Certificates for certain facilities.

Incidents which must be reported include:

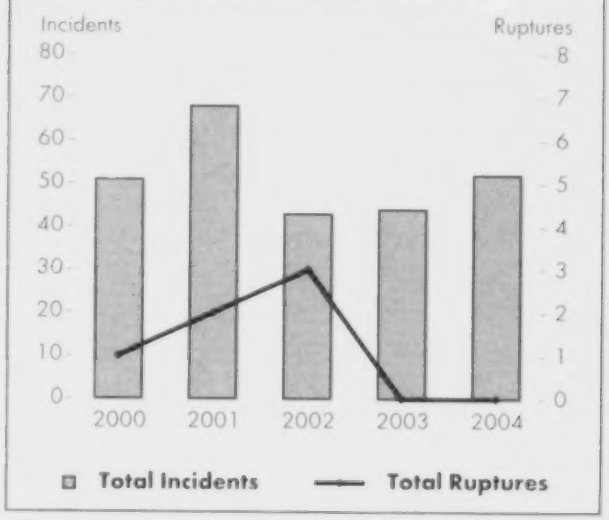
- the death or serious injury of a person;
- a significant adverse effect on the environment;
- an unintended fire or explosion;
- the unintended or uncontained release of low vapour pressure hydrocarbons in excess of 1 500 litres;
- the unintended or uncontrolled release of gas or high vapour pressure hydrocarbons;
- the operation of a pipeline beyond its design limits as determined under CSA Z662, CSA Z276 or any operating limits imposed by the Board; and
- within a processing plant, any occurrence that results or could result in a significant adverse effect on property, the environment or the safety of persons.

In 2004, 52 incidents were reported to the NEB, compared with 44 in 2003, and 43 in 2002 (Figure 12). The number of reported incidents remains relatively

constant although there are indications that reporting requirements are not being met by all regulated companies. The NEB is in the process of revising reporting requirements in an effort to achieve greater compliance. The NEB has a target of zero ruptures on the pipelines it regulates. In 2004, as in 2003, there were no ruptures on NEB-regulated facilities. Details of ruptures that have occurred on NEB-regulated pipelines, dating back to 1992, are available on the NEB's Internet site at http://www.neb-one.gc.ca/safety/PipelineRuptureData/index_e.htm.

In 2004, total hazardous occurrences in frontier areas, as defined by the *Oil and Gas Occupational Safety and Health Regulations* under the *Canada Labour Code, Part II*, were 34, down by 11 from 2003. Disabling injuries remained at three when compared with 2003, translating into an increase in frequency of disabling injuries from 2.0 per million hours worked in 2003 to 2.3 per million hours worked in 2004.

FIGURE 12: PIPELINE INCIDENTS AND RUPTURES 2000 TO 2004



PIPELINE SECURITY MANAGEMENT

Security management in the energy sector remains a high priority and focus. In the *Government of Canada Position Paper on a National Strategy of Critical Infrastructure Protection*, Public Safety and Emergency Preparedness Canada lists the Energy and Utilities Sector as one of the 10 sectors that form the basis of the National Critical Infrastructure Assurance Program. The Board, as a regulator of inter-provincial and international pipeline systems and electrical power-lines that cross borders, has historically included security management under the aegis of promoting safety, environmental protection and economic efficiency in the Canadian public interest.

The *Public Safety Act, 2002* (2004, c. 15) received Royal Assent 6 May 2004. Part 14, sections 82 to 93, refer to the NEB Act; however, until these amendments receive approval by the Governor in Council, they are not yet in force. This act will amend the NEB Act to explicitly include *security* within the Board's mandate and will provide the Board with the basis for regulating security of energy infrastructure under its jurisdiction.

In this regard, the Board decided to complete Pipeline Security Management Assessments (PSMAs) on all 10 Group 1 companies and two Group 2 companies between June 2004 and March 2005. The PSMA is an information gathering initiative to:

- gain an understanding on how the industry is managing pipeline security;
- identify industry practices and best practices; and
- identify security related issues that may be common to regulated companies.

Seven of the PSMAs were completed in 2004. The information gathered from these PSMAs will form the basis of the Board's approach to regulating pipeline security. All information gathered from these PSMAs is sensitive and will be protected under sections 16 and 17 of the *Access to Information Act*.

Focusing on management systems allows regulated companies to retain flexibility in how they manage security while operating in a way that assures public safety and security, and environmental prudence.

The Board continues to collaborate and liase with provincial regulators and agencies, federal agencies, American counterparts and pipeline associations in managing security issues.

PERCEPTION OF SAFETY

The NEB continued work on its Safety Performance Indicators (SPI) initiative during 2004. The primary objective of the SPI initiative is to gather and publish data on the safety and environmental performance of companies regulated by the NEB. The SPI results, produced on a calendar year basis, will permit bench-marking and trend analysis over time, and will allow the NEB to compare Canadian companies with international companies. By identifying areas that show changes in performance, programs can be adjusted to provide the most efficient allocation of safety resources. Information on the initiative as well as reports can be found at http://www.neb-one.gc.ca/safety/SafetyPerformanceIndicaticators/index_e.htm.

The NEB has issued a number of Safety Advisories. These are often developed as a result of the NEB's investigation into pipeline incidents and contain important information related to safety matters. The Transportation Safety Board (TSB) has also issued Safety Advisories pertaining to pipelines. Both NEB and applicable TSB Advisories are now being placed on the NEB's Internet site in the Safety & Environment section for public viewing. Two NEB Safety Advisories were published in 2004, with the latest Advisory published in December 2004 regarding the hazards of using threaded connections under adverse design conditions. The Safety Advisories can be found at http://www.neb-one.gc.ca/safety/SafetyAdvisories/index_e.htm.

As part of its monitoring program, the NEB also tracks landowner complaints.[4] In 2004, the Board received 20 landowner complaints. Three of these landowner complaints related to safety concerns regarding NEB-regulated facilities and activities, and company compliance with commitments, filings, conditions and regulatory requirements. One of the three complaints was resolved during the year. The NEB conducted inspections and met with the parties in association with these three complaints. In addition, one federally-regulated company participated in a local industry/community group to collaboratively assess and resolve issues.

During the year, the NEB contracted Environics Research Group, an independent public opinion research company, to conduct a survey of more than 1,100 landowners across Canada. A key concern that the Board wanted answered through the survey was how safe landowners felt living or working near an NEB-regulated pipeline. The Board also wanted to ascertain if landowners' experiences and views may have changed since the previous survey conducted in 2001, where comparable data were available.

The survey confirmed that a clear majority of landowners agree they feel safe and that the pipeline is not a threat to public safety. A trend analysis also indicated that landowners feel safer in 2004 than they did in the 2001 survey conducted by the Board (Figures 13 and 14). Environics cautioned that Board that while the results of the 2004 and 2001 surveys are generally comparable, the composition of the sample and the way in which the questions were asked were not strictly the same.

4. The Board has tracked landowner complaints since April 1999.

RESEARCH AND DEVELOPMENT

The Board continued to be active in committee work in support of the CSA Z662 Standard on Oil and Gas Pipelines and the CSA Z276 Standard on Liquefied Natural Gas. In addition, NEB staff are active in the organization of, and have made presentations, at major industry events including:

- the International Pipeline Conference (last held in Calgary in October 2004); and
- the Pipeline Technology Conference (last held in May 2004).

NEB staff also actively participate in the committee work of the Pipeline Materials Program at Objective Level of NRCan's Panel on Energy Research and Development and the Materials Technical Advisory Committee of CANMET.

At the International Pipeline Conference in Calgary a paper was presented by Dr. Franci Jeglic of the NEB entitled *Analysis of Ruptures and Trends on Major Canadian Pipeline Systems* IPC04-0272.

FIGURE 13: PIPELINE IS NOT A THREAT TO PUBLIC SAFETY

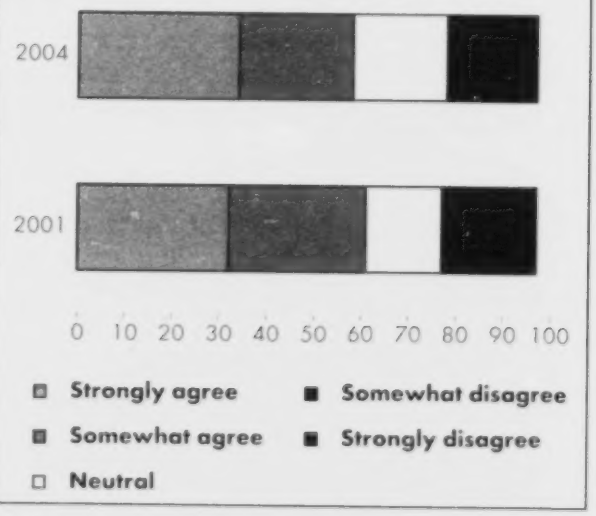
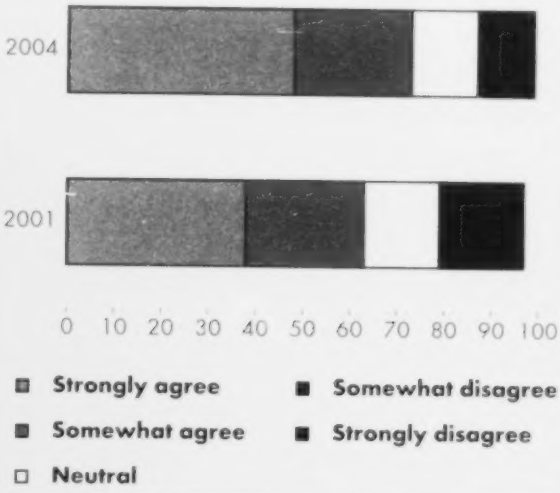


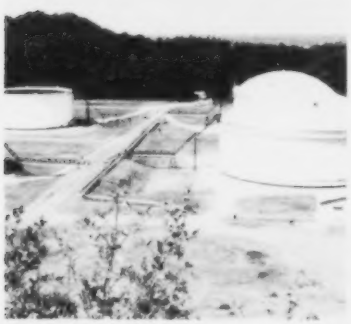
FIGURE 14: FEEL SAFE LIVING / WORKING NEAR THE PIPELINE



PROTECTING THE ENVIRONMENT AND RESPECTING THE RIGHTS OF THOSE AFFECTED

Goal 2:

NEB-regulated facilities are built and operated in a manner that protects the environment and respects the rights of those affected.



As part of its mandate to make its decisions in the Canadian public interest, the NEB requires regulated companies to identify and manage environmental, socio-economic and lands risks associated with their activities and with the construction, operation, maintenance and decommissioning of their facilities. The NEB achieves this goal by:

- considering all project phases (the *project lifecycle*) in assessment and compliance;
- conducting environmental, socio-economic and lands assessments of proposed projects;
- ensuring regulated companies notify landowners, tenants and affected parties regarding proposed facilities;
- ensuring regulated companies have consulted and acquired land rights through easements, permits or right of entry orders prior to construction;
- ensuring regulated companies consult with affected people and other stakeholders prior to, during and after construction;
- providing opportunities for affected people and other stakeholders to intervene or provide letters of comment regarding a proposed facility;
- ensuring that appropriate mitigation measures, approval conditions, and environmental protection plans are in place before granting project approval;
- inspecting and monitoring construction and operation of approved projects to verify compliance with, and assess the effectiveness of, mitigation measures, conditions, and environmental protection plans;
- auditing regulated companies' environmental protection, emergency response, public awareness and continuing education programs;
- investigating spills and releases to help prevent similar incidents;
- providing regulatory oversight with respect to environmental, socio-economic and lands issues during the abandonment phase; and
- addressing landowner complaints.

When making its decisions, the Board takes into consideration relevant environmental, socio-economic and land matters including, but not limited to:

- potential effects on air, land and water;
- potential effects on wildlife and vegetation, including species at risk, and the integrity of natural habitats;
- regional land use plans and zoning;

- alternate routes for pipelines and power lines;
- traditional land use;
- heritage and archaeological resources;
- human health and safety;
- local infrastructure and services;
- local labour force and economy;
- land requirements; and
- land acquisition.

ENVIRONMENTAL AND SOCIO-ECONOMIC ASSESSMENT

Regulatory Context

The regulatory framework for environmental and socio-economic assessment is complex and dynamic. While most NEB-regulated activities fall under the NEB Act, upstream oil and gas activities in non-accord frontier areas are governed by the COGO Act. In addition to meeting environmental and regulatory requirements under these Acts, most projects considered by the NEB must undergo assessments under the federal CEA Act or, in the Northwest Territories south of the Inuvialuit Settlement Region, under Part 5 of the *Mackenzie Valley Resource Management Act*.

Most environmental and socio-economic assessments at the NEB confirm or incrementally improve environmental and socio-economic design aspects of small energy infrastructure projects, for example, minor system expansions or technical upgrades to existing facilities, which are otherwise clearly in the public interest. Certain simple, routine energy projects, such as the addition of a valve or a meter station to an existing pipeline under specific conditions, identified in various provisions of the CEA Act *Exclusion List Regulations* and the NEB's Streamlining Order, are dealt with by a risk management approach. In effect, these regulatory *filters* formally implement a risk-management approach, helping to focus assessment attention and resources on larger or more complex projects, such as proposals for new pipeline systems like the Mackenzie Gas Project, with potential for significant environmental and socio-economic effects. In dealing with projects not excluded or streamlined, the Board uses a structured risk-management approach that considers the likelihood and consequence of potential effects. This helps to maintain the regulatory focus on important environmental design and socio-economic issues.

In 2004, the Board revised its comprehensive study process to integrate the NEB hearing and the comprehensive study processes. The NEB will now carry out a comprehensive study within its established regulatory hearing process. The Board also developed an internal guide to provide staff with information necessary to effectively and efficiently coordinate an approach to the comprehensive study process to better conform to the scheme of the CEA Act and the quasi-judicial nature of the NEB's responsibilities.

The NEB must track emerging technical and regulatory issues, so that its regulatory efforts are proactive, strategic and efficient. In 2004, an intranet-based *issue tracker* framework was piloted to engage specialists in monitoring, analysing, sharing and retaining knowledge on selected environmental, socio-economic and lands topics relevant to NEB strategic planning. If effective and efficient, the framework may be broadened to include safety, engineering and economics issues.

Federal Authority Initiative

In 2004, the Board continued work on the Federal Authority (FA) Initiative which was launched in 2003 to facilitate improved coordination and working relationships with other federal departments involved in NEB processes. Through this initiative, the Board also received feedback from federal departments on their experiences in working with the NEB. The Board used the results to identify potential improvements and implement changes to its environmental assessment processes and CEA Act responsibilities.

As a result, the Board modified its practices to enhance environmental assessment coordination e.g., Federal

Environmental Assessment Committee (FEAC) meetings. NEB staff may participate in or organize FEAC meetings to discuss process and timing issues with FAs prior to, and during an NEB hearing.

In addition, the Board is defining a new federal government participation role for federal authorities in the NEB hearing process. The new role will support Federal Authorities CEA Act responsibilities, while protecting the integrity of the NEB process and ensuring that CEA Act decisions benefit from effective participation of FAs.

In northern regions, the Board has continued to develop partnerships with other regulatory agencies and Aboriginal bodies to better coordinate environmental assessment processes and streamline regulatory reviews.

Filing Manual

In April 2004, the Board released the *NEB Filing Manual* to provide guidance to companies preparing applications to the Board. The Board's goal was to clearly state the Board's expectations so that companies understand what type of information would be required in the majority of cases and provide that information in their applications.

The Board wanted to ensure that stakeholder involvement opportunities were provided throughout the process. Industry, aboriginal groups, government and non-government organizations were involved in developing of the *NEB Filing Manual*, and the Board provided training in 2004 to help users become familiar with the document and the procedures it contains.

The filing requirements set out in the *NEB Filing Manual* for environmental, socio-economic and lands assessment are not substantially different from the information that was specified in the *Guidelines for Filing Requirements*. However, the *NEB Filing Manual* has been updated and provides clearer requirements and guidance to applicants. For example, the manual includes specific guidance on scoping of environmental and socio-economic assessments to assist applicants to determine the scope of information to be provided.

The *NEB Filing Manual* outlines the process for environmental and socio-economic assessment which applicants are expected to carry out. This process includes the evaluation of cumulative effects as part of the overall assessment. When looking at cumulative effects[5], the Board can consider whether a proposed project is incrementally responsible for adversely affecting a biophysical or socio-economic element beyond an acceptable point. The Board can consider these effects in the context of existing biological-based thresholds, resource management objectives, land use plans and recovery plans.

The *NEB Filing Manual* now includes explicit requirements and guidance on human health. These changes were made to ensure that future socio-economic assessments clearly describe how human health effects are assessed or why they have not been assessed. Internally, this has resulted in the incorporation of human health into the *Environmental Screening Report Template* and the *Non-Hearing Facilities Application Assessment Template / Case Management System*, and the development of a *Human Health Effects Assessment Framework*. All of these initiatives provide greater clarity and consistency as to how the NEB assesses human health effects. A risk-management approach is used to maintain the regulatory focus on important human health effects.

Late in 2004, two new filing manual projects were initiated by the Board to communicate its information requirements and expectations regarding electricity applications under the NEB Act and environmental matters for exploration and production applications under the COGO Act. The projects involve adapting the recently released *NEB Filing Manual* to address

5. Cumulative effects are changes to the environment caused by a project in combination with other past, present and future human actions.

the specific requirements of the electricity and COGO Act applications. Consultations on these draft manuals are expected to be undertaken during the first half of 2005.

Substitution

Under the CEA Act, the Minister of the Environment can substitute a hearing by the NEB for a CEA Act review panel or joint review panel process. Substitution was endorsed by the External Advisory Committee on Smart Regulation as a viable means to provide clearer communication and increased certainty of the entire regulatory review process, including the environmental assessment component. In response to the External Advisory Committee's recommendation, the NEB prepared a discussion paper in July 2004, on substitution under the CEA Act aimed at improving clarity, collaboration and timeliness to better achieve federal regulatory and environmental assessment requirements. Full NEB substitution would eliminate approximately four months from review times.

In December 2004, the NEB asked the Minister of the Environment to support a substitution agreement between the NEB and the CEA Agency. The Minister declined, anticipating that more efficiency and procedural certainty would be brought to the federal environmental assessment process through "consolidation of federal environmental assessment", as outlined in the October 2004 Speech from the Throne. The NEB remains fully committed to continuous improvement of its regulatory processes, and looks forward to working with the CEA Agency as it leads reform and consolidation of the federal environmental assessment process.

MONITORING COMPLIANCE

In addition to monitoring regulated facilities from a safety perspective, the NEB conducts inspections and audits in the context of environmental protection from the construction phase through to abandonment.

Inspections

As with safety, the NEB supports a cooperative approach to compliance monitoring, working with regulated companies to ensure environmental protection. NEB inspection officers monitor construction to verify compliance with the conditions of the project approval and the commitments set out in the company's environmental protection plan and its application. NEB inspection officers also conduct post-construction monitoring of operating facilities to evaluate the success of reclamation and other mitigation measures and to verify that the environment, the public and property are protected. In 2004, NEB inspection officers carried out 22 environmental inspections on NEB-regulated projects under construction and 18 environmental post-construction inspections. The NEB also conducts environmental inspections related to geophysical and drilling programs and production operations in frontier lands to verify compliance with the approved program and relevant regulations.

The NEB tracks environmental conditions for compliance and effectiveness. In 2004, 92 environmental conditions were confirmed to be effective in achieving their desired outcomes while seven were not. The conditions which did not produce an effective outcome were due to incomplete company filings or lack of condition clarity. Figure 15 shows the relative proportion of environmental conditions which were found to be effective. The NEB is committed to improving the clarity of its environmental conditions to eliminate the possibility of misinterpretation by companies of the Board's desired end result. A condition guide is being developed for staff use which incorporates feedback related to clarity of past conditions.

Management System Audits

In 2004, the NEB conducted four management system audits of regulated companies. Each audit included an evaluation of company environmental protection programs. One audit was carried out under the *National Energy Board Plant Processing Regulations* and the other

three were carried out under the *Onshore Pipeline Regulations, 1999*. One of the audits also evaluated compliance with applicable regulations under the COGO Act. Generally, the audited companies were found to have a strong commitment towards environmental protection with an environmental policy in place and supporting environmental programs. Some deficiencies were noted with regard to the development of formal processes for the identification and evaluation of environmental aspects, the delivery of appropriate environmental training programs, and the implementation of company internal audit programs. NEB auditors and inspection officers completed the audit cycle, following up on corrective actions completed in response to previous audits and evaluating whether the corrective actions taken were adequate.

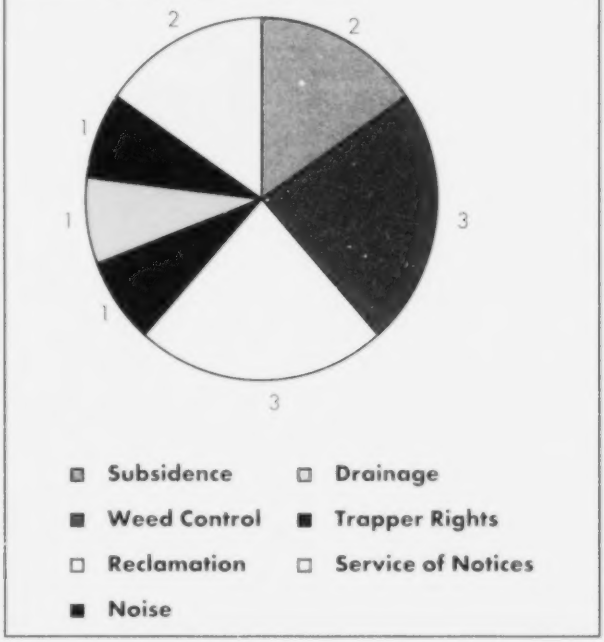
FIGURE 15: ACHIEVEMENT OF DESIRED END RESULTS FOR ENVIRONMENTAL CONDITIONS

Landowner Complaints

As with safety, the Board also tracks landowner complaints related to environmental and rights[6] issues. Of the 20 landowner complaints received in 2004, 10 related to concerns regarding the protection of the environment (Figure 16). Six of these 10 complaints were resolved in 2004. The NEB conducted inspections and met with the parties in association with three of these landowner complaints.

The Board also received three landowner complaints related to concerns regarding the rights of those affected, which were resolved in 2004. These complaints related to trapping rights and appropriate service of notices prior to and during construction of a facility.

FIGURE 16: TOPICS OF COMPLAINTS RECEIVED IN 2004 RELATED TO ENVIRONMENTAL AND RIGHTS ISSUES



6. The rights protected relate to activities undertaken by a company for the life of the NEB-regulated facility, which means from the pre-application to abandonment of that facility. The consideration of rights may include, but is not limited to service of notices, consultation, an opportunity to be heard by the Board, access to information, communication, reclamation, safety and protection of the environment.

Landowner complaints[7] are initially assessed based on the following:

- Does the NEB regulate the facility?[8]; and if so;
- Are the complaint issues raised by the affected party (e.g. landowner) within the Board's authority?[9]

The landowner complaint process provides the parties with sufficient flexibility to request Board involvement or assistance at any point and a process is designed to meet the needs of the parties.

Ideally, the parties have a greater level of satisfaction if they resolve their issues without Board involvement; however, the parties are provided with the following options to assist in the resolution of the complaint:

- Telephone or written exchange involving Board staff;
- Inspections and meetings with Board staff and the parties;
- Appropriate dispute resolution; and
- Board decision and review.

Spills and Releases

Spills and releases of hydrocarbons or other substances associated with NEB-regulated activities and facilities are of concern to the Board. Depending on the nature of the product that is released, spills and releases can result in environmental damage. Twenty-seven gaseous and liquid hydrocarbon spills were reported in 2004. This is up slightly from the 26 gaseous and liquid hydrocarbon spills that were reported in 2003 and remains down from 33 spills and releases reported in 2002, and 46 in 2001. There were five reportable spills of liquid hydrocarbons greater than 1 500 litres in 2004. All but one of the spills was contained within pump station sites, or terminals. There were no incidents that resulted in liquid product migrating off company property or the right of way. In frontier areas, reportable spills were down about 20 percent from 42 spills and releases in 2003 to 33 in 2004, partly due to a small decrease in the level of exploration and production activity in 2004. The NEB's investigation process for hydrocarbon spills includes follow-up to verify that site remediation is carried out as required by the NEB and prescribed in the company's remediation plan.

RESEARCH AND DEVELOPMENT

The Environmental Studies Research Funds (ESRF) provides funding for environmental and social projects pertaining to decision-making in regard to petroleum exploration, development and production activities on frontier lands. The NEB chairs and provides technical and administrative resources for the ESRF Management Board, which consists of industry, government and members of the public. In 2004, the Management Board approved 20 new studies, continued to provide funding to others that were previously approved, and participated in updating the CSA Standard for Offshore Structures. ESRF reports can be ordered through the ESRF Internet site at www.esrfunds.org.

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7. By definition, a landowner is any person, group or company who has an interest in or who is directly or indirectly affected by the activities of a federally-regulated facility during the construction, operation and abandonment of that facility.

8. If the NEB does not regulate the facility, Board staff will refer the Landowner to the appropriate authority.

9. If the concerns are not within the Board's authority (e.g. compensation issues or trespass), Board staff will refer the Landowner to the appropriate provincial or federal authority. Note that although issues raised may not be within the NEB's authority to resolve, parties will be provided with a venue to discuss these issues when they choose to participate in an ADR process.

Goal 3:

Canadians derive the benefits of economic efficiency.

The Board promotes the benefits of economic efficiency through:

- the regulatory decisions it renders;
- the energy market information it provides to Canadians; and
- the efficiency and effectiveness of its regulatory processes.

REGULATORY DECISIONS

The Board strives to promote an efficient energy infrastructure that meets the needs of users and allows owners to earn a fair return on their investment through its regulatory decisions. A summary of Board Decisions rendered in 2004 is provided in the *Applications Highlights* section.

ENERGY MARKET INFORMATION

Energy market monitoring and analysis provides two key outcomes to assist in promoting economic efficiency. First, it allows the Board to gain a thorough understanding of energy supply, markets and infrastructure in order to render decisions as an expert regulatory tribunal. Second, it allows the Board to provide information to Canadians about the energy markets in order to help both users and suppliers make informed decisions.

Functioning of Canadian Energy and Transportation Markets

To determine whether Canadians are deriving the benefits of economic efficiency, the Board looks for evidence that the energy and transportation markets are working well. Consequently, the Board monitors energy markets to ensure that Canadian energy users can access Canadian energy on terms and conditions comparable to those of export purchasers. Similarly, the Board monitors transportation markets with regard to the utilization and adequacy of pipeline capacity.

With respect to the natural gas market, it would be expected that the commodity price, for example at the Alberta border, would be essentially the same for all gas buyers, whether destined for domestic or export markets. Figure 17 shows natural gas prices at export points in eastern Canada netted back to the Alberta border, compared with prices at AECO-C, the main pricing point for natural gas in Alberta, with transportation cost to the Alberta border added on.

The figure shows that prices at AECO-C are usually equal to or lower than the equivalent prices at export points. This demonstrates that Canadians are paying no more for natural gas than export customers for gas purchased in Alberta.

Similarly, the Board tracks prices in the British Columbia gas market and the Maritimes gas market. Both of these markets pose challenges, mainly related to the relatively small number of buyers and sellers. The Board continues to monitor these markets. For further information, readers may refer to the Board's March 2004 report titled *Natural Gas Prices in the Maritimes*, or the April 2004 report titled *The British Columbia Natural Market: An Overview and Assessment*, which discuss the current state of each of these markets. These reports can be found on our Internet site at http://www.neb-one.gc.ca/energy/EnergyReports.

With respect to crude oil, a similar relationship exists between domestic and export prices (Figure 18). The chart demonstrates that Canadians have access to Canadian crude oil on price terms at least as favourable as export customers.

The Board also monitors electricity markets, although this presents some challenges due to the regional nature and operational structure of electric power markets. However, residential electricity prices are generally considerably lower in Canada than in nearby cities in the U.S.

In order for energy markets to work well, there has to be adequate transportation capacity to move crude oil, refined products, natural gas and natural gas liquids from producing areas to the end-users who require them. When there is adequate capacity between two pricing points, the prices will be *connected* and the price differential will be less than or equal to the cost of transportation between the two points.

For example, Figure 19 shows the basis, or the difference in commodity prices between the Alberta border and the Dawn delivery point in southwestern Ontario, compared with the firm service toll (including fuel costs) between these two points on the TransCanada PipeLines system, the largest natural gas pipeline system in Canada.

FIGURE 17: EASTERN EXPORT AND DOMESTIC GAS PRICE AT THE ALBERTA BORDER ($ PER GIGAJOULE)

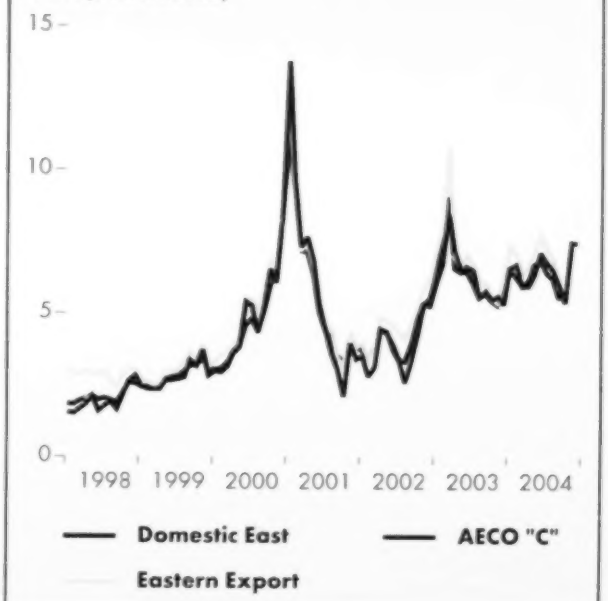


FIGURE 18: LIGHT CRIDE OIL EXPORT AND POSTED PRICE AT EDMONTON ($ PER CUBIC METRE)

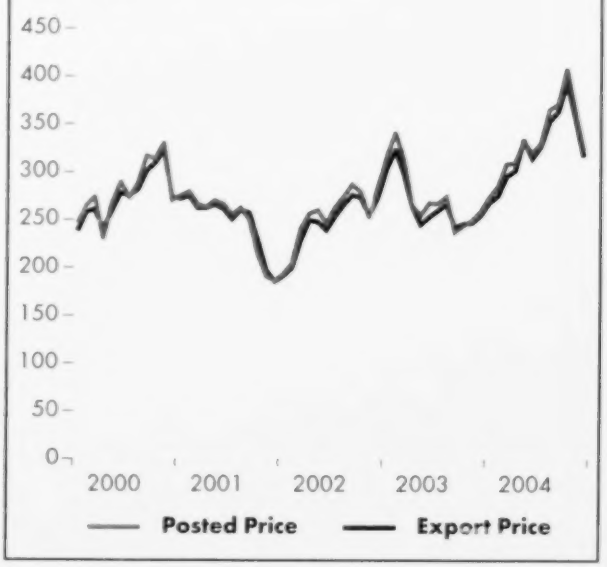


FIGURE 19: COMMODITY PRICE DIFFERENTIALS
($ PER GIGAJOULE)

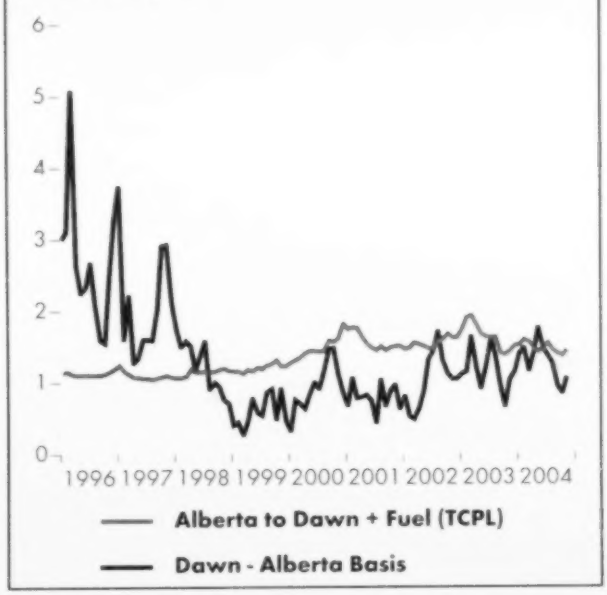
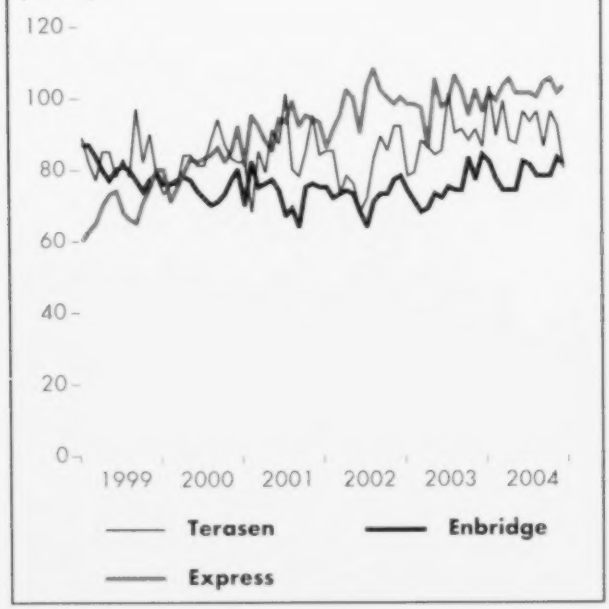


FIGURE 20: OIL PIPELINE CAPACITY UTILIZATION
(PERCENT)



The fact that the price difference is typically lower than the firm service transportation toll demonstrates that there is adequate capacity in place. The Board tracks similar charts for other pipeline corridors within Canada, and is satisfied that there are generally sufficient levels of natural gas pipeline capacity.

With respect to oil pipelines, lack of adequate pipeline capacity is experienced when shippers request transportation of more oil or oil products than the pipeline can carry. This normally results in a situation known as apportionment, under which each of the shippers that requested volumes is *apportioned* a share of the available capacity.

In 2004, Enbridge operated at approximately 80 percent of total capacity, with the actual throughput averaging 229 600 m^3/d (Figure 20). Enbridge's Line 9, which ships oil from Montreal to Sarnia, operated at maximum capacity for most of the year with apportionment of over 20 percent. However, in the last quarter, production problems at the Terra Nova Field, offshore Newfoundland, and a decrease of imports into Ontario resulted in reduced demand for Line 9 capacity.

The Terasen (or Trans Mountain) Pipeline operated at over 90 percent of its light capacity during 2004. A small capacity expansion project of 4 300 m^3/d was completed by October 2004. Increased demand by Anacortes, Washington refineries, greater shipments of heavier crude oil to the Westridge Dock, Vancouver and maintenance associated with the expansion contributed to several months of apportionment.

Express Pipeline Limited Partnership continued to operate at full capacity in 2004, at times exceeding 100 percent of its rated capacity. The high rate of capacity utilization on a number of these pipelines, combined with growing production from the oil sands and the incidences of apportionment, has led to several proposals to expand oil pipeline capacity.

Adequate electric power transmission facilities support functioning electricity markets by accessing generation

and enabling inter-regional trade. Infrastructure reliability also impacts a system's ability to deliver electricity to end use customers. In 2004, there were a number of developments across the country with respect to transmission infrastructure.

In May 2003, the National Energy Board approved NB Power's application to construct and operate a 95.5 kilometre, 345 kV international transmission line from the existing transmission terminal at Point Lepreau Generating Station to a point on the Maine-New Brunswick border west of St. Stephen, New Brunswick. Detailed route hearings are now planned for 2005.

In September 2004, Manitoba and Ontario entities proposed the Clean Energy Transfer Initiative. The proposed interprovincial power line would have an incremental transmission capacity of 1500 MW and would move power from northern Manitoba to southern Ontario in the 2013-2017 timeframe.

The Alberta Electric System Operator developed a plan to expand and upgrade its transmission system. Also in Alberta, a consortium, consisting of Rocky Mountain Power, Lectrix Ltd. and Scott Land and Permitting, proposed an $80 million, 230 kV international transmission line to carry power between Alberta and Montana. Another proposed international transmission line still under consideration is Northern Lights which would move power from the Fort McMurray area to the U.S. Pacific Northwest.

In British Columbia, Sea Breeze Power Corp. and its subsidiary proposed a 1 600 MW high voltage direct current transmission line, to extend from its planned 450 MW wind farm on northern Vancouver Island to the U.S.

In June, after a number of consultations with stakeholders, the Board approved the Pipeline Services Survey which will survey shippers of ten major NEB-regulated pipeline companies. The pipeline companies are to send the survey to each of their active shippers no later than 31 January of each calendar year starting January 2005. Shippers are to return one response which reflects their company's corporate views on the services provided by the pipeline being surveyed. The Board will publish a summary of the results in aggregate for all the surveyed companies. In addition, the Board will provide detailed company-specific results to each pipeline and to the shippers that responded to the survey. These results will include the pipeline company's average rating for each question as well as the verbatim comments received from shippers, with the source of those comments removed.

Energy Market Reports

The Board produces a number of publications and statistical reports which address various market aspects for all major energy commodities including oil, natural gas, natural gas liquids and electricity. In 2003, a third-party survey was conducted that indicated that the Board's analyses are highly valued for their accuracy, quality and objective viewpoint. In 2004, the Board sought input from a variety of stakeholders and the public on its proposed areas of study in energy markets. This input was used to develop the Energy Market Assessment (EMA) program for 2005/2006.

During 2004, the Board produced the following reports addressing various aspects of the oil, natural gas and electricity markets:

- *Natural Gas Prices in the Maritimes* provides the results of the Board's enhanced monitoring of gas prices being paid by Canadian consumers in the regional Maritimes market. The report found that: domestic and export prices are very closely linked; domestic buyers are paying about the same as export buyers at the St. Stephen, New Brunswick export point; the Maritimes market has very few buyers and sellers and limited supply which makes average prices very sensitive to individual transactions; and, additional supply is needed to support additional buyers and sellers to improve

market transparency. The report concludes that the Maritimes market is functioning properly, but the Board will continue to monitor developments.

- *Canada's Conventional Natural Gas Resources: A Status Report* reviews the current status of the Board's resource estimates for all sedimentary basins in Canada. The report includes the results of the Board's assessment of Alberta's resources which shows that the resource base has increased and that a larger portion of the undiscovered resources will be found in small pools in the shallower zones.
- *The British Columbia Natural Gas Market: An Overview and Assessment* examines the British Columbia (B.C.) market which has been challenged by higher prices, price spikes and higher price volatility in recent years. The report found that B.C. markets are linked to other North American markets and are subject to the same market influences. The report concludes that the B.C. market is functioning well and that market participants are responding as expected, with producers seeking to bring more supply to the market and buyers taking measures to reduce demand.
- *Canada's Oil Sands: Opportunities and Challenges to 2015* provides an assessment of the current state of the oil sands industry, its potential for growth, and discusses the major issues and challenges facing the industry. The report highlights the large size of the potential oil resources in the oil sands and discusses all of the major issues that could impact the development of those resources in the years to come.
- *A Compendium of Electric Reliability Frameworks Across Canada* was motivated by ongoing issues surrounding the assurance of electric reliability in restructured electricity markets and by the 2003 power blackout that affected a large portion of Ontario. Both issues had raised concerns about the reliability of the interconnected North American transmission grid. The Compendium describes, by province and territory, the roles of industry, governments and regulators in providing reliable electricity and addresses specific regional reliability issues.
- *Looking Ahead to 2010: Natural Gas Markets In Transition* reports on the results of a series of cross-country meetings with interested parties and stakeholders. With the premise that significant sources of new supply would not be expected prior to 2010, the report examines the implications and potential actions that could be taken by regulators, governments and market participants. Based on the meeting results, the Board will focus on improving the effectiveness and efficiency of its regulatory processes and the provision of energy market information.
- *Short Term Canadian Natural Gas Deliverability 2004 - 2006* provides the Board's estimate of deliverability over the next two years. The Board expects a small increase in the total deliverability from Western Canada due to an increase in the annual number of gas wells drilled. The increase in deliverability primarily comes from natural gas from coal. The volume of conventional gas from offshore Nova Scotia is expected to be maintained at current levels over the next two years, but will be subject to considerable daily variability.

The Board also compiles several statistical reports related to its regulatory role in the oil, gas and electricity industries. Data is compiled on a monthly basis, with annual summaries available back to 1985. Subject areas include: natural gas exports, imports, volumes and prices, exports of propane and butane; crude oil and petroleum product exports; light and heavy crude oil export prices; crude oil supply and disposition; and imports and exports of electricity. All Board reports are available on the Internet site at www.neb-one.gc.ca/statistics/index_e.htm.

REGULATORY EFFICIENCY

The Board strives to make its regulatory processes as efficient and effective as possible. While facilitating market-based solutions will still be a large component of its regulatory strategy, the Board recognizes that regulation will play an important role for some time to come.

Smart Regulation

The *Speech from the Throne 2004* renewed the 2002 federal government commitment to smart regulation as a key strategy in maintaining a Canadian advantage in a globally competitive world. An External Advisory Committee on Smart Regulation examined Canada's regulatory framework and produced a report recommending changes in Canadian regulatory strategy given the rapid pace of commerce, increasing complexity of policy issues, globalization, and rising public expectations.

The EACSR outlines Smart Regulation as:

- both protecting and enabling;
- more responsive regulation; and
- governing cooperatively, with all levels of government, for the public interest.

In 2004, the Board focused its efforts on providing smart regulation by:

- advancing the use of goal-oriented regulation;
- processing applications in an efficient and timely manner, while diligently fulfilling its responsibility to protect the public interest;
- involving Canadians in numerous forums regarding regulatory development and energy markets;
- reviewing its processes, engaging in dialogue with stakeholders, clarifying expectations, implementing new approaches, and preparing for major applications; and
- negotiating with other agencies to ensure that regulatory processes are harmonized to minimize duplication.

Regulatory Operations and Maintenance Activities on NEB-Regulated Pipelines

In response to questions raised by companies regarding clarification of which operations and maintenance activities require an application under Section 58 of the NEB Act and which ones fall within the Streamlining Order, the Board initiated a project to provide clarity regarding the Section 58 application process. Additionally, this project will improve the Board's regulation of operation and maintenance activities.

Based on preliminary discussions with industry representatives, the Board has released a draft regulatory framework for the regulation of operations and maintenance activities that will reduce the regulatory burden for regulated companies while maintaining the appropriate levels of pipeline safety, environmental protections and respect for landowner rights. The Board also invited landowner associations to meet with staff or to submit written comments. Following completion of this consultation, the new regulatory framework is expected to be in place in 2005.

Service Standards

In 2004, the Board developed service standards for the cycle times of non-hearing Section 58 applications. The goal of this initiative is to provide increased certainty to applicants as to when a decision from the Board might be expected. Starting in 2005, each non-hearing Section 58 application will be classified into one of three categories based on its level of complexity, the estimated number and type of information requests which may be generated, the probability of third-party interest and the level to which a Regulatory Authority or Federal Authority may become involved in assessing the application. Shortly after filing an application, applicants will be notified of the category assigned and the estimated date for release of a decision.

As in previous years, requests for short-term natural gas, natural gas liquids, petroleum products and crude oil export orders continue to be processed within 48 hours of receipt by the Board.

NEB Filing Manual

As mentioned in the previous chapter, the Board released the *NEB Filing Manual* in April 2004 to provide guidance to companies preparing applications. The Filing Manual states the Board's expectations so that companies understand them in the preparation of their applications. The Board also held workshops to help users become familiar with the document and the procedures it contains.

Model International Power Line Conditions

In 2004, a set of *model* conditions were developed to be considered as a starting point for conditions to be applied to future Certificates of Public Convenience and Necessity issued for international power lines. Interested parties and industry stakeholders provided comments and feedback during the development of the conditions. The comments and feedback were then taken into consideration in arriving at the set of *model* conditions.

Appropriate Dispute Resolution (ADR)

The Board has developed an ADR program to find efficient and effective ways to resolve matters or increase understanding about issues either within or outside the regulatory process. The use of collaborative, interest-based processes is encouraged to help people share their views, listen to others and work together to resolve issues.

The Board encourages parties to work together to resolve matters, where appropriate, and provides trained staff to facilitate meetings. Workshops and conferences also provide opportunities for people to exchange information, share their views and work toward consensus in resolving issues. During 2004, the Board held a pre-hearing conference to clarify issues for a toll and tariff hearing, and carried out a collaborative workshop focused on identifying solutions regarding cost recovery regulations related to the electricity industry.

Effective Cooperation

Energy projects often involve several jurisdictions, and where jurisdictions overlap, such as in the case of a northern pipeline proposal, the Board is working with a number of regulatory agencies to ensure that environmental assessment and regulatory issues are dealt with in a coordinated manner. Coordination efforts are focused on eliminating duplication while maintaining or enhancing meaningful public engagement.

Implementation of the *Cooperation Plan for the Environmental Impact Assessment and Regulatory Review of a Northern Gas Pipeline through the NWT* continued through 2004, with ongoing involvement by the 12 agencies with responsibilities for a pipeline. The Northern Gas Project Secretariat, established pursuant to the Cooperation Plan to support the review of the Mackenzie Gas Project and provide a public window on the project, continued its operations from Yellowknife and in April 2004, opened an office in Inuvik.

In the provinces of Alberta and British Columbia, the Board and the provincial regulators have had common databases for crude oil and natural gas reserves for a number of years. In 2004, the Board and each provincial regulator committed to the joint assessments of the natural gas resources in these provinces and expects to release the results of those assessments in 2005.

In an effort to increase efficiency of processes involving other federal departments, the NEB launched the Federal Authority Initiative, discussed under Goal 2. This initiative seeks to facilitate improved coordination and working relationships with other federal departments involved in NEB processes.

In the aftermath of the 2003 power blackout experienced in Ontario and the U.S. Northeast, the power industry,

governments and regulatory bodies alike have increased their focus on the reliability of the bulk power system infrastructures. As a regulator of international power lines, the Board remains an active participant in the efforts of industry (e.g., North American Electric Reliability Council) and the Canadian and U.S. Governments to strengthen and improve the reliability of the joint power system.

On the international level, the Board continues to meet regularly with the FERC and the Mexican national energy regulator, the Comisión Reguladora de Energía. These agencies are committed to regular meetings to share perspective on regulatory approaches and to eliminate inconsistencies in those approaches. In May 2004, the NEB and FERC signed a Memorandum of Understanding (MOU) to enhance interagency coordination. Both agencies recognize that they oversee interconnecting facilities and activities and the MOU will help regulatory efficiency.

Goal 4:

The NEB fulfills its mandate with the benefit of effective public enegagement.

Ensuring effective engagement is vital to the Board's decision making processes as it ensures fair and complete decisions. The scope of the Board's engagement opportunities has grown in recent years to include broad consultation on new processes, an increased number of meetings and hearings in affected communities, and a wider range of tools for the public to access information about the NEB's operations. This trend of increased participation has occurred in government decision-making at all levels.

Effective citizen engagement requires a commitment by all stakeholders for open, honest and transparent communication. Parties affected by proposed projects have the most at stake and require the NEB to live up to its commitment to public engagement. In 2004, the NEB changed the wording of Goal 4 to reflect that commitment. The new wording puts the emphasis on the benefit to the NEB, in the form of improving outcomes, of effectively engaging the public.

The NEB is committed to improving its services to Canadians. Throughout the year the NEB asks its stakeholders, through various consultations and surveys, if their needs are being met. This feedback is crucial to ensure the Board meets the needs of stakeholders.

BUILDING INTERNAL CAPACITY

The NEB is a learning organization. As the needs of stakeholders change, the Board adapts. This is especially evident with the NEB's Appropriate Dispute Resolution (ADR) program, Aboriginal Engagement program, and E-filing. Each of these programs was initiated to better meet the needs of the NEB's stakeholders.

Increasing Collaboration

The Board's ADR program provides a flexible framework for parties to work together to increase understanding about issues and, where appropriate, work toward win-win outcomes. Given the importance of long-term relationships among many people affected by the Board's work, opportunities for face-to-face, collaborative discussion are a key way to learn more about others' views and foster more productive relationships.

Whether arranging small group meetings for landowners and company representatives or large workshops with many participants, Board staff work collaboratively with the parties to ensure the session will encourage participation and make effective use of everyone's time. Positive feedback was received from landowners and company representatives in Board staff facilitated meetings and

from participants in two workshops held in the fall of 2004 on the topics of Cost Recovery Regulations for Electricity and Regulatory Improvement.

The NEB and the Alberta Energy and Utilities Board are honourary members of the Company to Company (C2C) ADR Council which represents 10 industry and professional associations. The Council is committed to promoting improved conflict management among companies within the energy sector. In April 2004, the Council hosted a conference and released a handbook titled *Let's Talk*. The handbook provides case studies, tools and other resources for people looking for more effective ways to resolve conflicts within the energy industry and is available for purchase through the Council. For more information, contact the Board's ADR specialists at ADR-MRD@neb-one.gc.ca.

Enhancing Aboriginal Engagement

During the past year, the Board has continued enhancing Aboriginal engagement. A large part of this has included the further development of internal capacity for understanding Aboriginal issues, as well as outreach to Aboriginal communities.

Various internal tools are available to staff to increase understanding of Aboriginal context and perspectives when it comes to the regulatory arena. A searchable database of information about Aboriginal communities across Canada continues to expand and be available to all NEB employees. An Aboriginal issues tracking system, which was established in 2003, also continues to inform employees about topics of concern or interests raised by Aboriginal groups and individuals. Other value-added tools and advice on engagement opportunities are offered to staff on an ongoing basis.

The NEB has also undertaken outreach efforts into the broader community through informal presentations, community meetings and attendance at conferences and Aboriginal-focused events.

Improving E-filing

E-filing allows applicants and intervenors the option of submitting regulatory documents electronically. It also provides all Canadians with the opportunity to view these documents on-line. The NEB's e-filing system enhancements were completed in 2004. These enhancements allow individuals to file letters of comment and apply for Intervenor status on-line. In addition, significant improvements were implemented for submitting documents and for browsing regulatory documents.

The NEB has experienced significant increases in the number of documents e-filed during the last three years. This year, 3 105 documents were e-filed. The number of documents filed has tripled since e-filing began in 2002. These increases are attributable to the improved e-filing system and the benefit it provides for stakeholders.

Implementing Service Standards

In today's results-based management environment, service standards have become an essential tool for building effective citizen-focused service within organizations. The Board has reviewed a number of its processes with a goal of establishing standards for service delivery to clients. To date, some of the service standards established include: release of hearing decisions, Section 58 cycle times, export/import authorizations, COGO Act applications, landowner complaints, requests for information and publications, and correspondence.

The objective is to offer clarity to clients about what to expect from the Board, how services will be delivered and what clients can do when services received are not acceptable. Service standards also provide an indicator of performance that the Board can track and report on publicly and use as a basis for service improvement. These targets are being developed in consultation with key clients who could be impacted by a change in service and who have had experience with Board processes and services.

UNDERSTANDING PUBLIC ENGAGEMENT NEEDS

The Board is able to offer effective public engagement options by understanding how individuals want to participate in its processes. Through various tools, including surveys, the Board can better understand the needs of its stakeholders.

Feedback

Landowner survey

In 2004, the NEB retained Environics Research Group, an independent research firm, to undertake a telephone survey of landowners who have an NEB-regulated pipeline on their land. The purpose of the survey was to systematically and objectively collect information from landowners across Canada about their perceptions of pipeline safety, company and Board communications and handling of landowner complaints. In March, over 1 100 telephone interviews were conducted with landowners across Canada.

To help determine client satisfaction with the Board's service and identify areas for improvement, the survey included questions from the Common Measurements Tool (CMT). The CMT, developed by Treasury Board, provides a common set of benchmark measures to facilitate comparisons across a wide spectrum of public sector services and products.

The key survey results include:

Pipeline safety:

- Landowners generally feel safe having a pipeline on their property, and have confidence in the company operating it; and
- Most landowners appear to be familiar with basic pipeline safety procedures and excavation requirements.

Landowner Contact with Company:

- One-third of landowners have initiated contact with their pipeline company within the past five years to discuss construction issues, property damage or compensation; and
- Most landowners are highly satisfied with the response received from companies.

Landowner Contact with the NEB:

- More than eight in 10 landowners have heard of the NEB, but few have had any direct contact; and
- Direct contact has been made primarily by phone or letter.

Industry Survey

The Industry Survey had similar objectives to the Landowner Survey. The objectives were to measure company and association experiences and satisfaction with NEB contacts, obtain industry perspectives about the key issues facing the NEB, the extent to which the NEB is realizing its vision, and to provide recommendations for future research and communications with industry stakeholders. Telephone interviews were conducted by Environics with 24 industry representatives.

The key findings in the survey include:

- NEB's application process was given high marks in terms of providing good information, useful application tools and opportunities for pre-filing contact;
- The Internet site is actively used by industry (mostly for information on the NEB or on specific decisions), and it generally meets expectations; and
- Industry contacts are generally positive about the service received when directly contacting the NEB.

Post-hearing surveys

To ensure the Board meets the need of hearing participants, each receive a survey to fill in at the conclusion of a hearing. The survey measures the participant's level of satisfaction with various factors including overall satisfaction (Figure 21).

Board Visits

Board Members periodically visit NEB-regulated energy facilities in different regions of Canada to gather first hand information about energy matters. This year Board Members visited sites in two provinces associated with natural gas from coal developments. In August, they visited a pilot project near Fernie, British Columbia. The Board Members observed wells, pumping systems and water disposal facilities. In October, Board Members spent a day visiting various sites near Beiseker, Alberta. The sites visited included a compressor station and a well site.

REMOVING BARRIERS

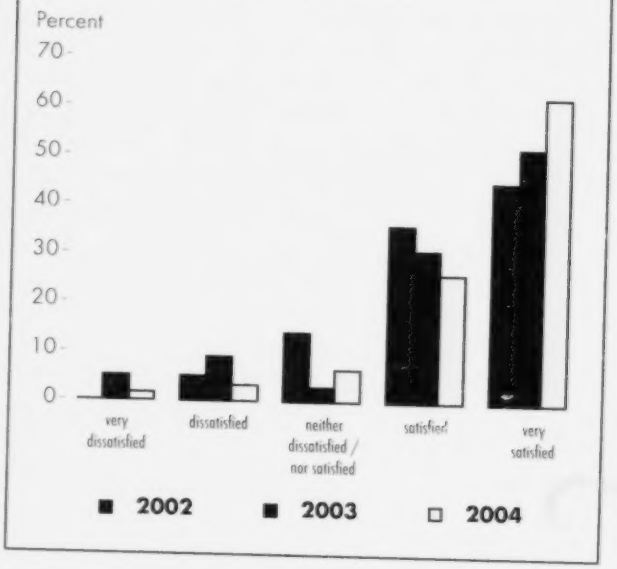
By improving and better communicating processes, the NEB can better serve its stakeholders.

Hearing Tool Kit

One of ways the NEB is removing barriers to participation, is with the Hearing Tool Kit for NEB staff use. It is a framework that identifies, develops, implements and maintains various options or tools for public engagement to increase the efficiency and effectiveness of NEB hearings. There are currently several tools, such as participation categories, procedural updates, and workshops, used in the hearing process to engage the public.

Through the ongoing development of tools for effective engagement, feedback mechanisms, and processes for continuous improvement and best practices for public hearings, the Board is demonstrating its commitment to enhance the efficiency and effectiveness of its hearings.

FIGURE 21: POST-HEARING SURVEY QUESTIONNAIRE



Resolving Landowner Complaints

The NEB received 20 landowner complaints, which related to safety, protection of the environment and rights of affected parties, and other matters, including compensation and related concerns. Board staff met with the landowners and company representatives for nine of these complaints. As well, a pre-ADR process was used with one landowner complaint, in which the landowners, company representatives and Board staff met to discuss the issues and develop a plan for complaint resolution.

Board staff also worked collaboratively with various provincial governments in association with six of these landowner complaints. Two complaints were referred to the provincial governments for resolution and, for one landowner complaint, Board staff participated in an inspection and consulted with provincial government representatives. NEB staff also met with two Group 1 companies to provide detailed information regarding the landowner complaint process and solicit feedback regarding the process.

INVOLVING CANADIANS

Consultations

Each year, the NEB consults its stakeholders in a number of different ways. One way is by inviting the public to comment on various documents. In 2004, people were able to comment on the Environmental Assessment for the Proposed Beaufort Sea Exploration Drilling Program and the Environmental Scoping document for a proposed liquefied natural gas Rabaska Project. The comments received are considered prior to moving to the next stage of a project.

The NEB also consulted various stakeholders when preparing its latest Energy Market Assessments. Some of these include consultations for *Canada's Oil Sands: Challenges to 2015*, *Short-term Canadian Natural Gas Deliverability 2004-2006*, *Looking Ahead to 2010 – Natural Gas Markets in Transition*, and *The British Columbia Natural Gas Market: An Overview and Assessment*. For *Looking Ahead to 2010 – Natural Gas Markets in Transition* the Board sponsored eight roundtable sessions in major Canadian cities to examine how natural gas markets may evolve to the end of the decade. The report summarizes the feedback and recommendations received during these roundtable sessions.

The NEB also meets twice each year with the Cost Recovery Liaison Committee, a joint committee of industry representatives subject to cost recovery charges. The mandate of the committee is to discuss NEB cost recovery methodology and regulations, and to provide a forum to explain its financial statements, planned expenditures, goals and initiatives.

Public Information Sessions

In November, the Board held a number of public information sessions for people who could be affected by the Mackenzie Gas Project. These sessions were held in Inuvik, Norman Wells, Yellowknife, Fort Simpson, and Enterprise in the Northwest Territories and High Level in Alberta. The sessions hosted by Joint Review Panel Staff, National Energy Board Staff and Northern Gas Project Secretariat Staff included an overview of the environmental assessment and regulatory review and public hearing processes.

Awareness Workshop in Montreal

Over 100 delegates attended the 2004 Public Awareness Workshop held in Montreal from September 26 to 28. This is the fifth NEB Public Awareness Workshop, and from its inception the goal has been to create a forum for industry to share its best practices related to public awareness, damage prevention and emergency response. Security was added to the agenda this year. In the feedback questionnaire, attendees gave the conference high marks overall. More than 80 percent were satisfied with the Workshop.

Regulatory Improvement Workshop

Understanding the challenges faced by those who are affected by NEB matters and being prepared to adjust the NEB's focus, are critical components of regulatory improvement. The NEB hosted a workshop in November involving 60 different stakeholder representatives. The objectives for the workshop were: to obtain a clear understanding of the current and emerging challenges stakeholders face; to understand and discuss stakeholders' ideas regarding the areas in which the Board should focus over the next three years to best respond to those challenges; and to determine if there is a need to create a long term plan or vision for achieving public interest goals out to the year 2015. Through the workshop, it was clear that stakeholders generally support the NEB's regulatory program and plans. As a result of the workshop, the NEB refined its Strategic Plan to include more emphasis on continued stakeholder engagement and to expand the Board's efforts in providing advice to policy makers regarding regulatory and related energy issues.

COMMUNICATING WITH CANADIANS

Internet site

The Board's Internet site is the preferred point of contact for many stakeholders. During 2004, the Board continued increasing Internet site accessibility for Canadians by providing easier navigation and readability for those visually impaired and making Board documents more readable in most Web browsers. The Board also continued to provide on-line broadcasts of its hearings and made transcripts of the hearings available on its Internet site. In 2004, the NEB had 372 656 hits on its Internet site.

News Releases

The Board issued 21 news releases in 2004. The nature of the releases included information about public hearings, Board decisions on applications, invitations to comment and publication releases. NEB news releases are distributed through a national newswire service and are also available through the NEB's Internet site and Library.

Toll-free phone (1-800-899-1265) and toll-free fax (1-877-288-8803)

Canadians are able to contact the Board free-of-charge by phone or fax. In 2004, 4 525 calls were received on the phone line. The number of calls to the toll-free phone line has decreased by just over 700 calls from 2003. This decrease is likely due to fewer hearings throughout the year. The toll-free fax line is a new service offered for the first time this year.

Publications

Each year the NEB produces publications for its various stakeholders. Some of the new publications for 2004 include: *A Proposed Pipeline or Power Line Project: What You Need to Know*, as well as Energy Market Assessments. These publications are mailed to key stakeholders, and are available through the NEB's Internet site and Library. Each publication contains a comment card, and the reader can return the card, postage paid, to provide the NEB with feedback. In 2004, 68 comment cards were received. The readers rated the NEB's publications highly, with 79.4 percent of respondents satisfied with the information presented in a particular document.

Goal 5:

The NEB is effective in leading its people and managing its resources.

Goal 5, added in 2003, includes the integration of planning and reporting activities with the ultimate objective of enhanced coordination and knowledge and information sharing across the Board. Through this goal the NEB focuses on accountability both in terms of leadership practices and skill development and in turn, establishes a requirement to define performance standards in order to measure results.

The NEB carries forward the following two high level-performance measures from 2003 as a means of evaluating success:

- Employee Satisfaction: Data collection will take place through triennial employee surveys with a summary of the results subsequently being released to the Board's management. Since two survey years of data are currently available for this measure, benchmarking against the available public service data has now begun and is expected to continue into the future.
- Per-Capita Cost of Regulation for Selected Jurisdictions: Calculated annually, this formula measures the annual operating budget of other provincial and federal regulatory bodies divided by the population served.

Effective communication with employees about the contribution they can make towards achieving success is critical. Throughout 2004, the Board utilized a variety of tools including the intranet, all staff meetings and questions to the Chief Operating Officer to communicate intentions around this corporate goal to all NEB staff members.

In support of Board efforts, an organizational review was undertaken in order to validate whether corporate resources were aligned effectively in order to achieve the greatest return possible on investment. This was the first formal review since the 1997 re-organization and the NEB was seeking confirmation of whether the existing model continued to be useful. Subsequent to the review, the Board elected to implement a number of recommendations that included the creation and staffing of Group Leaders, a review of NEB competencies and transferring the Communications function to the Executive Office from Information Management.

As a result of the strategic planning exercise in the fall of 2004, the Board recognized a growing need for a focus on effective stakeholder engagement, advice to policy makers and the development of forward-looking regulatory programs and plans. In response, the creation of a new Business Unit responsible for leading these efforts was considered. In addition, in order to better align and reinforce service delivery, the amalgamation of the existing Corporate

Services and Information Management business units was recognized as a positive step. The decision to act on both of these opportunities and to restructure the NEB will come into effect on 1 April 2005.

The performance measures for this Goal continue to evolve as the NEB's commitment to leadership development is rolled out. The corporate objective is to achieve a greater balance between technical capabilities and leadership skills. An analysis of the current leadership skills inventory in comparison to planned outcomes has been helpful in creating a relevant and realistic learning plan that will support the appropriate adjustments.

The immediate focus is to develop the current management cadre. Once progress has been achieved within this group, the plan is to expand the development of leadership skills to those employees who have demonstrated the potential and interest to be our leaders of the future. Ultimately, the NEB will be better situated to respond to the needs of both internal and external stakeholders.

NEB'S EXPENDITURES AND FINANCIAL REPORTING

The NEB's expenditures and staff levels for the last eight fiscal years are illustrated in Table 9. Funding for the NEB is provided by the Government of Canada. The government, in turn, recovers costs from companies whose facilities are regulated by the NEB. The NEB continues to recover approximately 90 percent of its operating costs from regulated industries. Additional information on budgets and plans may be found in the NEB's *2004-2005 Main Estimates, Part II* and the *2004-2005 Estimates Part III – Report on Plans and Priorities*, both of which are available on the NEB's Internet site.

In order to meet Treasury Board's fiscal year end requirements and the cost recovery calendar year requirements, the NEB prepares two sets of annual financial statements. The first set is prepared on a fiscal year period ending March 31 using the accrual basis of accounting in accordance with Treasury Board of Canada Accounting Standards based on Canadian Generally Accepted Accounting Principles. These financial statements form part of the Public Accounts of Canada. The Office of the Auditor General determines when or if it will audit the NEB's Public Accounts financial statements in order to express an opinion on the consolidated statements of the Government of Canada.

The second set of financial statements, for cost recovery purposes, is prepared on a calendar year period using the accrual basis of accounting in accordance with Treasury Board of Canada Accounting Standards based on Canadian Generally Accepted Accounting Principles. These statements are audited by the Office of the Auditor General on an annual basis and are used as the basis for determining the costs recovered in accordance with the *National Energy Board Cost Recovery Regulations*.

Further information on either set of financial statements can be obtained by contacting the NEB. The consolidated financial statements for the Government of Canada can be found at www.pwgsc.gc.ca/recgen/text/pub-acc-e.html. The audited financial statements for cost recovery purposes can be located on the Board's Internet site at www.neb-one.gc.ca/pubs/index_e.htm.

TABLE 9: HISTORICAL EXPENDITURES AND STAFFING

Fiscal Year (April 1 to March 31)	Expenditures ($000)	Full-Time Equivalents
1997 - 1998	28 048	264
1998 - 1999	53 187 [a]	277
1999 - 2000	26 900	286
2000 - 2001	26 216	289
2001 - 2002	28 836	281
2002 - 2003	31 232	287
2003 - 2004	31 189	297
2004 - 2005	33 274 [b]	299 [b]

(a) In 1998, the NEB made payments of $22.2 million for out-of-court settlements with the energy industry relating to relocation costs of the NEB from Ottawa to Calgary.
(b) Estimate

NEB AS A SEPARATE EMPLOYER

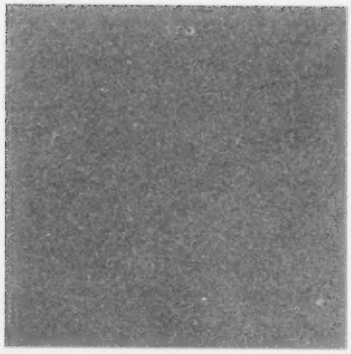
The NEB has been a separate employer since December 1992. As a Public Service separate employer, the authority to carry out certain personnel management functions has been transferred from Treasury Board to the Chairman of the NEB. With the transfer of authority comes the responsibility for creating and maintaining an NEB classification system, the development of human resource management policies and practices and collective bargaining.

Although a separate employer, the NEB continues to be bound by federal legislation. The Board is governed by the terms of the *Public Service Employment Act* (PSEA) in respect to promotion and recruitment. Employee and employer relations are subject to the *Public Service Staff Relations Act* (PSSRA). As a result, the NEB is subject to public service reductions and public service wage restraint decisions. Financial matters are governed by the *Financial Administration Act* (FAA) as administered by Treasury Board. Furthermore, the NEB is bound by the provisions and standards set out in the *Official Languages Act* and the *Employment Equity Act*.

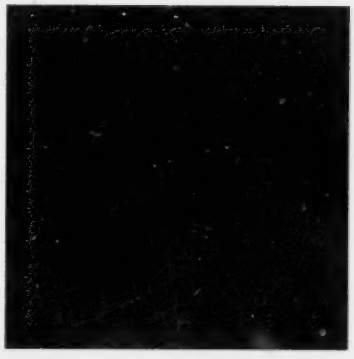
In November 2003, with the coming into force of the *Public Service Modernization Act* (PSMA), all federal employers were advised of the changes associated with legislative reform and how those changes would be implemented across the federal public service. In 2004, the NEB began preparing to implement the changes associated with the PSEA (December 2005), the new *Public Service Labour Relations Act* (PSLRA, April 2005) which supercedes the PSSRA, and the FAA (April 2005). Central agencies including the Canada School of the Public Service and Treasury Board have accepted responsibility to communicate all changes through an education program involving a combination of classroom instruction and on-line learning that will be available to both line managers and human resource practitioners in the coming year.

In 2004, the consolidation of two bargaining agents occurred as the Professional Institute of the Public Service of Canada (PIPSC) became the sole bargaining agent to represent the interests of NEB unionized employees. This decision, determined through a collective membership vote, was preceded by presentations to the Public Service Staff Relations Board and considerable consultation within the two membership bodies. Following the vote, the NEB and PIPSC began negotiating the terms of a collective agreement for all unionized NEB staff members and these negotiations were successfully concluded with a tentative agreement signed on November 15, 2004[10].

10. Anticipate agreement to be signed in February 2005.



As of 31 December 2004, Board membership consisted of eight full-time members who were appointed based upon their wide range of expertise in energy matters and public policy. Our multi-disciplinary team reflects the diverse perspectives and the practical knowledge required for making decisions on energy projects in the interests of Canadians and for advising the Government of Canada on energy issues. Members have private and public sector experience in economics, engineering, environment, finance, law, public participation, safety and science.



KENNETH W. VOLLMAN, CHAIRMAN

A native of Saskatchewan, Mr. Vollman has a Master's degree in Mechanical Engineering from the University of Saskatchewan and is a member of the Association of Professional Engineers of Alberta. Mr. Vollman has spent his career working in the energy sector, gaining his practical experience with oil and gas production while working in the private sector. During his career at the NEB, Mr. Vollman gained experience in energy supply and demand, pipelines, energy regulatory issues and management. In 1998, he was designated as Chairman after serving as a Member and Vice-Chairman. Over the past 35 years, Mr. Vollman has authored and presented numerous papers at Canadian and international conferences.

JEAN-PAUL THÉORÊT, VICE-CHAIRMAN

(resigned effective 31 December 2004)

A native of Quebec, Mr. Théorêt has a diverse educational and professional background in business, economics, law and energy regulation. Mr. Théorêt was a Commissioner of the Régie de l'énergie in Quebec for eight years. He was elected to the Quebec National Assembly in 1985 where he served as Parliamentary Assistant to the Minister of Industry, Trade and Technology, as well as Vice-Chairman of the Committee on Labour and the Economy. Mr. Théorêt has 30 years of business experience, serving as an Executive Vice President of a large food distribution company and owner of food stores in Quebec. A member of the NEB since 1999, he was designated Vice-Chairman in 2002.

GAÉTAN CARON, VICE CHAIRMAN

(effective 1 January 2005)

Originally from Quebec, Mr. Caron obtained his Bachelor of Applied Sciences degree from Laval University and his Master of Business Administration degree from the University of Ottawa. Mr. Caron joined the NEB in 1979, where he has held several senior positions. Prior to his appointment as a Board Member, he held the position of Chief Operating Officer. Mr. Caron is a member of the board of the United Way of Calgary and Area.

ROWLAND J. HARRISON

Originally from Australia, Mr. Harrison has a Master of Laws degree from the University of Alberta and is a member of the bars of Nova Scotia, Ontario and Alberta. He has gained extensive advisory, consulting and research experience in various aspects of energy regulation and policy during his career.

Mr. Harrison has extensive experience as an advisor on energy regulation to provincial, territorial, federal and foreign governments. He has been Professor of Law at the University of Ottawa, Dalhousie University, the University of Calgary and the University of Alberta. Most recently, he was a partner in the Calgary office of Stikeman Elliott, a national and international Canadian law firm.

JOHN S. BULGER

Originally from Manitoba, Dr. Bulger has a Ph.D. in Physical Chemistry from York University in Toronto, as well as a Graduate Management Diploma from McGill University in Montreal. He has experience in procurement, operations, planning, regulatory affairs and providing advice on energy issues. Prior to being appointed to the Board, he held the position of Senior Manager, Regulatory Affairs at Maritimes and Northeast Pipeline in Halifax, Nova Scotia. He also spent almost 20 years at Gaz Métropolitain in various senior management positions. He began his career at DuPont of Canada Ltd. Dr. Bulger is a member of the Chemical Institute of Canada.

ELIZABETH (LIZ) QUARSHIE

Originally from Ghana, Ms. Quarshie has a Master's degree in Business Administration from the University of Saskatchewan and a Master of Science degree in Environmental Engineering from Washington State University. She is a member of the Association of Professional Engineers and Geoscientists of Saskatchewan and is a Certified Professional Environmental Auditor.

Ms. Quarshie has more than 15 years experience in the energy sector and has held a portfolio of senior management positions at Cogema Resources Inc. and Cameco in Saskatoon, and directed programs such as occupational health and safety, environmental impact assessments, compliance and public affairs. She also has extensive industry experience in project planning and design, development, implementation, monitoring and decommissioning. Ms. Quarshie has experience in radiation protection, air pollution control, solid and hazardous waste management, water and wastewater treatment, research and evaluation, environmental

management systems, audits and community development.

DEBORAH W. EMES

Originally from Saskatchewan, Ms. Emes has a Master of Arts in Economics from the University of Calgary and is a Chartered Financial Analyst. She has practical and academic expertise in providing regulatory, economic and market advice. Ms. Emes has held positions in the public and private sectors, including Manager, Strategic Services for the British Columbia Utilities Commission. She has taught rate design and cost of capital training seminars for the Canadian Association of Members of Public Utility Tribunals.

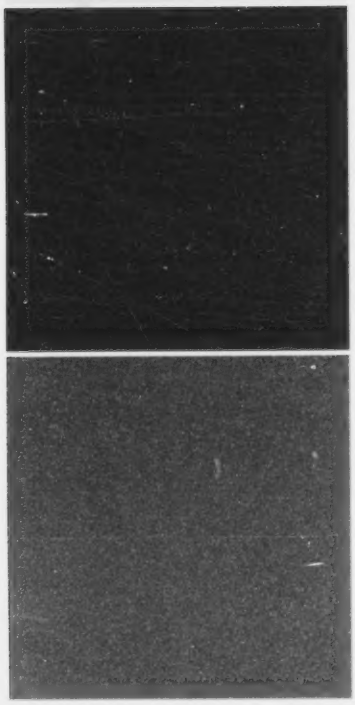
CARMEN L. DYBWAD

A native of Saskatchewan, Dr. Dybwad has a Ph.D. in Regional Planning and Resource Development from the University of Waterloo. She has an educational background in economics as well as practical and academic expertise in public participation, resource development and the electricity sector. Dr. Dybwad has held several positions with the Government of Saskatchewan and the Saskatchewan Power Corporation, including Manager of Environmental Policy and Planning. Most recently, she was an assistant professor at the University of Regina where she taught classes in ecological economics, sustainable development and public administration.

DAVID HAMILTON, TEMPORARY BOARD MEMBER

Originally from Scotland, Mr. Hamilton holds a Master of Arts in Leadership and Training from the Royal Roads University, Victoria, British Columbia. Mr. Hamilton has more than 30 years of experience working in the Northwest Territories in the development of people and communities through both the parliamentary and democratic processes. He was Deputy Minister and Clerk of the Legislative Assembly of the Northwest Territories for 20 years. Following division of the NWT in 1999, Mr. Hamilton administered the first general election for Members to the Legislative Assembly in Canada's two new Territories, Nunavut and the Northwest Territories. He has also participated in the ratification votes for the Gwich'in Land Claim Agreement, the Sahtu Settlement Agreement and the Inuit Land Claim Settlement.

Mr. Hamilton has been appointed Temporary Board Member for matters related to the Mackenzie Gas Project application.



ACTS

National Energy Board Act
Canada Labour Code, Part II
Canada Oil and Gas Operations Act
Canada Petroleum Resources Act
Canadian Environmental Assessment Act
Energy Administration Act
Mackenzie Valley Resource Management Act
Northern Pipeline Act
Species at Risk Act

REGULATIONS AND ORDERS PURSUANT TO THE NATIONAL ENERGY BOARD ACT

National Energy Board Act Part VI (Oil and Gas) Regulations
National Energy Board Cost Recovery Regulations
National Energy Board Electricity Regulations
National Energy Board Export and Import Reporting Regulations
National Energy Board Gas Pipeline Uniform Accounting Regulations
National Energy Board Oil Pipeline Uniform Accounting Regulations
National Energy Board Oil Product Designation Regulations
National Energy Board Onshore Pipeline Regulations, 1999
National Energy Board Order No. MO-62-69
National Energy Board Pipeline Crossing Regulations, Part I
National Energy Board Pipeline Crossing Regulations, Part II
General Order No. 1 Respecting Standard Conditions for Crossings by Pipelines
General Order No. 2 Respecting Standard Conditions for Crossings of Pipelines
National Energy Board Power Line Crossing Regulations
National Energy Board Processing Plant Regulations
National Energy Board Rules of Practice and Procedure, 1995
National Energy Board Substituted Service Regulations
Pipeline Arbitration Committee Procedure Rules, 1986
Regulations amending the National Energy Board Cost Recovery Regulations (21 October 2002)
Section 58 Streamlining Order XG/XO-100-2002
Toll Information Regulations

GUIDELINES, GUIDANCE NOTES AND MEMORANDA OF GUIDANCE PURSUANT TO THE NATIONAL ENERGY BOARD ACT

- Appropriate Dispute Resolution (ADR) Guidelines (18 July 2003)
- Consultation with Aboriginal Peoples: National Energy Board Memorandum of Guidance (4 March 2002)
- Filers Guide to Electronic Submission (1 December 2004)
- *Filing Manual* (April 2004)
- Filing of Supply Information in Compliance with the Board's Part VI (Oil and Gas) Regulations (16 May 1997)
- Filing Procedures for Section 104 Right of Entry Order Applications (27 October 1999)
- Financial Regulatory Audit Policy of the National Energy Board (23 February 1999)
- Guidance Notes for the *Onshore Pipeline Regulations, 1999* (7 September 1999) Amendment I (20 January 2003)
- Guidance Notes for Pressure Equipment under National Energy Board Jurisdiction (8 August 2003)
- Guidance Notes for the *Processing Plant Regulations* (28 July 2003) including: Appendix I – Guidance Notes for the Design, Construction, Operation and Abandonment of Pressure Vessels and Pressure Pipeline (3 July 2003) and Appendix II – Security and Emergency Preparedness and Response Programs (24 April 2002)
- Guidelines for Negotiated Settlement of Traffic, Tolls and Tariffs (12 June 2002)
- Guidelines Respecting the Environmental Information to be Filed by Applicants for Authorization to Construct and Operate Gas Processing and Straddle Plants, Liquid Natural Gas (LNG) Plants and Terminals, Natural Gas Liquids (NGL), Liquid Propane Gas (LPG) and Butane Plants and Terminals, under Part III of the *National Energy Board Act* (26 June 1986)
- Investigative Digs and Related Pipeline Repairs/ Replacements (2 December 2002 and 26 February 2003)
- Memorandum of Guidance – Electronic Filing, *National Energy Board Rules of Practice and Procedure, 1995* (21 March 2002)
- Memorandum of Guidance - Concerning Full Implementation of the September 1988 Canadian Electricity Policy (Revised 23 January 2003)
- Memorandum of Guidance – Implementation of the Fair Market Access Procedure for the Licensing of Long-term Exports of Crude Oil and Equivalent (17 December 1997)
- Memorandum of Guidance - Regulation of Group 2 Companies (6 December 1995)
- Memorandum of Guidance - Retention of Accounting Records by Group 1 Companies Pursuant to Gas/Oil Pipeline Uniform Accounting Regulations (30 November 1994)
- National Energy Board Pre-Application Meetings Guidance Notes (26 February 2004)
- Performance Measures filed as part of Year-end Quarterly Surveillance Reports (26 January 1996)
- Security and Emergency Preparedness and Response Programs (includes document entitled Expected Elements for Emergency Preparedness and Response Programs) (24 April 2002)

REGULATIONS PURSUANT TO THE CANADA OIL AND GAS OPERATIONS ACT

- *Canada Oil and Gas Certificate of Fitness Regulations*
- *Canada Oil and Gas Diving Regulations*
- *Canada Oil and Gas Drilling Regulations*
- *Canada Oil and Gas Geophysical Operations Regulations*
- *Canada Oil and Gas Installations Regulations*
- *Canada Oil and Gas Operations Regulations*
- *Canada Oil and Gas Production and Conservation Regulations*
- *Oil and Gas Spills and Debris Liability Regulations*

GUIDELINES AND GUIDANCE NOTES PURSUANT TO THE CANADA OIL AND GAS OPERATIONS ACT

Guidance Notes for the *Canada Oil and Gas Drilling Regulations*
Guidelines Respecting Physical Environmental Programs during Petroleum Drilling and Production Activities on Frontier Lands
Notice of Revised Offshore Waste Treatment Guidelines (21 August 2002)

REGULATIONS PURSUANT TO THE CANADA PETROLEUM RESOURCES ACT

Environmental Studies Research Fund Regions Regulations
Frontier Lands Petroleum Royalty Regulations
Frontier Lands Registration Regulations
Lancaster Sound Designated Area Regulations
Order Prohibiting the Issuance of Interests at Lapierre House Historic Site in the Yukon Territory
Order Prohibiting the Issuance of Interests at Rampart House in the Yukon Territory

GUIDELINES AND GUIDANCE NOTES PURSUANT TO THE CANADA PETROLEUM RESOURCES ACT

Northwest Territories – Nunavut - Guidance Notes for Applicant - Applications for Declaration of Significant Discovery and Commercial Discovery (January 1997)
Applications for Declaration of Significant Discovery and Commercial Discovery – Directly Affected Persons (17 November 2003)

REGULATIONS PURSUANT TO THE CANADIAN ENVIRONMENTAL ASSESSMENT ACT

Comprehensive Study List Regulations
Exclusion List Regulations
Federal Authorities Regulations
Inclusion List Regulations
Law List Regulations
Projects outside Canada Environmental Assessment Regulations
Regulations Respecting the Co-ordination by Federal Authorities of Environmental Assessment Procedures and Requirements

REGULATIONS PURSUANT TO THE CANADA LABOUR CODE, PART II

Canada Occupational Health and Safety Regulations
Oil and Gas Occupational Safety and Health Regulations
Safety and Health Committees and Representatives Regulations

REGULATIONS PURSUANT TO THE MACKENZIE VALLEY RESOURCE MANAGEMENT ACT

Exemption List Regulations
Mackenzie Valley Land Use Regulations
Preliminary Screening Requirement Regulations

REGULATIONS PURSUANT TO THE NORTHERN PIPELINE ACT

Northern Pipeline Notice of Objection Regulations
Northern Pipeline Socio-Economic and Environmental Terms and Conditions for Northern British Columbia
Northern Pipeline Socio-Economic and Environmental Terms and Conditions for the Province of Alberta
Northern Pipeline Socio-Economic and Environmental Terms and Conditions for the Province of Saskatchewan
Northern Pipeline Socio-Economic and Environmental Terms and Conditions for Southern British Columbia
Northern Pipeline Socio-Economic and Environmental Terms and Conditions for the Swift River Portion of the Pipeline in the Province of British Columbia
Order Designating the Minister of Natural Resources as Minister for Purposes of the Act

Transfer of Duties, in Relation to the Pipeline, of Certain Ministers under Certain Acts to the Member of the Queen's Privy Council for Canada Designated as Minister for Purposes of the Act

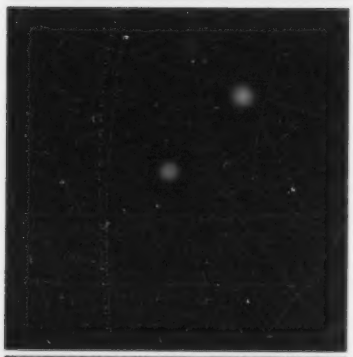
Transfer of Duties, in Relation to the Pipeline, of the National Energy Board under Parts I, II and III of the *Gas Pipeline Regulations* to the Designated Minister for Purposes of the Act

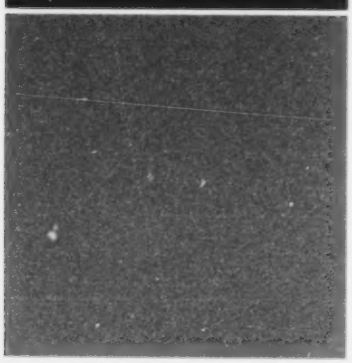
Transfer of Powers, Duties and Functions (Kluane National Park Reserve Lands) Order

Transfer of Powers, Duties and Functions (Territorial Lands) Order

GUIDELINES AND GUIDANCE NOTES PURSUANT TO THE SPECIES AT RISK ACT

The Coming into Force of Specific Sections of the Federal *Species at Risk Act*, S.C. 2002, c. 29 and its Effect on Applications before the National Energy Board (letter dated 11 September 2003)





COMPANIES WITH FACILITIES OR ACTIVITIES REGULATED BY THE NEB

The following pipeline companies and electric power entities construct or operate interprovincial or international pipelines or power lines under the NEB's jurisdiction, as of 31 December 2004. The pipeline companies have been divided into two groups. Group 1 gas and oil pipelines are the major pipeline companies subject to active regulatory oversight by the NEB. Group 2 consists of all other pipeline companies under the NEB's jurisdiction. For purposes of cost recovery, there are three classifications for companies: large, intermediate and small. The criteria for determining a company's classification are based on its size, throughput, and cost of service.

Group 1 Gas Pipelines

Alliance Pipeline Ltd.
Foothills Pipe Lines Ltd.
Gazoduc Trans Québec & Maritimes Inc.
Maritimes & Northeast Pipeline Management Ltd.
TransCanada PipeLines Limited
TransCanada PipeLines Limited, B.C. System
Westcoast Energy Inc.

Group 1 Oil and Products Pipelines

Cochin Pipe Lines Ltd.
Enbridge Pipelines Inc.
Enbridge Pipelines (NW) Inc.
Terasen Pipelines (Trans Mountain) Inc.
Trans-Northern Pipelines Inc.

Group 2 Gas Pipelines

AltaGas Services Inc.
AltaGas Suffield Pipeline Inc.
AltaGas Transmission Ltd.
Apache Canada Ltd.
ARC Resources Ltd.
Bear Paw Processing Company (Canada) Ltd.
Bellator Exploration Inc.
BP Canada Energy Company
Canada Customs and Revenue Agency
Canadian Hunter Exploration Ltd.
Canadian Natural Resources Limited
Canadian-Montana Pipe Line Corporation
Centra Transmission Holdings Inc.
Champion Pipeline Corporation Limited
Chief Mountain Gas Co-op Ltd.

DEFS Canada L.P.
Devon Energy Canada Corporation
Enbridge Gas Distribution Inc.
EnCana Border Pipelines Limited
EnCana Ekwan Pipeline Inc.
EnCana Oil & Gas Co. Ltd.
EnCana Oil & Gas Partnership
EnCana West Ltd.
ExxonMobil Ca ada Properties
Forty Mile Gas Co-op Ltd.
Gibson Energy Ltd.
GSX Canada Limited Partnership
Huntingdon International Pipeline Corporation
Husky Oil Operations Ltd.
KeySpan Energy Canada Company
Many Islands Pipe Lines (Canada) Limited
Mid-Continent Pipelines Limited
Minell Pipeline Limited
Murphy Canada Exploration Company
Murphy Oil Company Ltd.
Niagara Gas Transmission Limited
Northstar Energy Corporation
Olympia Energy Inc.
Omimex Canada, Ltd.
Paramount Transmission Ltd.
Peace River Transmission Company Limited
Pengrowth Corporation
Penn West Petroleum Ltd.
Petrovera Resources Ltd.
Pioneer Natural Resources Canada Inc.
Portal Municipal Gas Company Canada Inc.
Profico Energy Management Ltd.
Regent Resources Ltd.
Renaissance Energy Ltd.
St. Clair Pipelines Management Inc.
Samson Canada, Ltd.
Shiha Energy Transmission Ltd.
Sierra Production Company
Suncor Energy Inc.
Taurus Exploration Canada Ltd.
Union Gas Limited
Vector Pipeline Limited Partnership
County of Vermilion River No. 24 Gas Utility
3398251 Canada Ltd.

Group 2 Oil and Products

Amoco Canada Petroleum Company Ltd.
Aurora Pipe Line Company
Berens Energy Ltd.
BP Canada Energy Company
ConocoPhillips Canada Limited
Dome Kerrobert Pipeline Ltd.
Dome NGL Pipeline Ltd.
Enbridge Pipelines (Westspur) Inc.
Ethane Shippers Joint Venture
Express Pipeline Limited Partnership
Genesis Pipeline Canada Ltd.
Glencoe Resources Ltd.
Husky Oil Limited
Imperial Oil Resources Limited
ISH Energy Ltd.
Montreal Pipe Line Limited
Murphy Oil Company Ltd.
Nexen Marketing
NOVA Chemicals (Canada) Ltd.
PanCanadian Kerrobert Pipeline Ltd.
Paramount Transmission Ltd.
Penn West Petroleum Ltd.
Plains Marketing Canada, L.P.
PMC (Nova Scotia) Company
Pouce Coupé Pipe Line Ltd. as agent and general partner of the Pembina North Limited Partnership
PrimeWest Energy Inc.
Provident Energy Pipeline Inc.
Renaissance Energy Ltd.
SCL Pipeline Inc.
Shell Canada Products Limited
Sun-Canadian Pipe Line Company
Taurus Exploration Canada Ltd.
Yukon Pipelines Limited

Commodity Pipelines

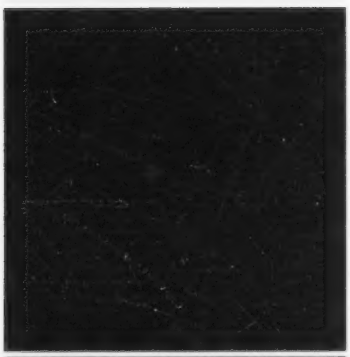
Abitibi-Consolidated Company of Canada
E.B. Eddy Forest Products Ltd.
Fraser Papers Inc. (Canada)
Genesis Pipeline Canada Ltd.
Penn West Petroleum Ltd.
Souris Valley Pipeline Limited

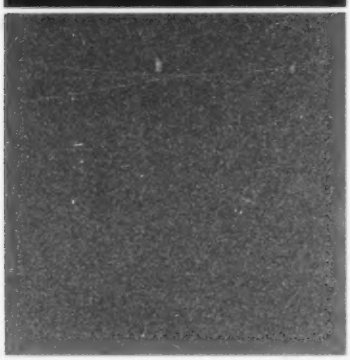
Electric Power Companies

(*Indicates the company's authorizations expired or were revoked during 2004.)

Abitibi-Consolidated Inc.
Advantage Energy, Inc.
ALLETE, Inc. d/b/a Minnesota Power
Aquila Networks Canada (British Columbia) Ltd.
ATCO Power Canada Ltd. and Alberta Power (2000) Ltd.
Avista Energy, Inc.
Black Oak Capital, LLC.
*Bonneville Power Administration
BP Canada Energy Company
Brascan Energy Marketing Inc.
British Columbia Hydro and Power Authority
Canadian Transit Company
Candela Energy Corporation
Cargill Energy Trading Canada, Inc.
Chandler Energy Inc.
Cincinnati Gas & Electric Company, The
Citadel Financial Products S.a.r.l.
CMS Energy Resource Management Company
Columbia Power Corporation
Conectiv Energy Supply Inc.
Constellation Energy Commodities Group, Inc.
Consumers Energy Company
Coral Energy Canada Inc.
Detroit and Windsor Subway Company
Detroit Edison Company, The
Direct Commodities Trading (DCT) Inc.
Direct Energy Marketing Inc.
DTE Energy Trading, Inc.
Duke Energy Marketing Canada Corp.
Duke Energy Marketing Canada Ltd.
Dynegy Power Marketing, Inc.
Edison Mission Marketing & Trading, Inc.
Emera Energy Inc.
EnCana Energy Services Inc.
Engage Energy Canada, L.P.
Engage Energy US, L.P.
Enmax Energy Marketing Inc.
EPCOR Merchant and Capital Inc.
Exelon Generation Company, LLC
FortisBC Inc.
FortisOntario Inc.
Fraser Paper Inc. (Canada)
Hydro One Networks Inc.
Hydro-Québec
Independent Electricity Market Operator
Inland Pacific Energy Services Ltd.
MAG Energy Solutions Inc.
Manitoba Hydro-Electric Board
Marketing D'Énergie HQ Inc.
Merrill Lynch Commodities Canada, ULC
Merrill Lynch Commodities, Inc.
Mirant Americas Energy Marketing, L.P.
Montenay Inc.
MontWegan International Energia Resorce Inc.
Morgan Stanley Capital Group Inc.
New Brunswick Power Generation Corporation
New York Power Authority
Nexen Marketing
Northern States Power Company
NorthPoint Energy Solutions Inc.
Nova Scotia Power Inc.
NRG Power Marketing, Inc.
OGE Energy Resources, Inc.
Ontario Power Generation Inc.
Ontario Power Generation Inc./Ontario Power Interconnected Markets Inc.
PG&E Energy Trading - Power L.P.
Powerex Corp.
PPL EnergyPlus, LLC
Public Service Company of Colorado
Rainbow Energy Marketing Corporation
Reliant Energy Services Canada, Ltd.
Sempra Energy Trading Corp.

SESCO Enterprises Canada Ltd.
Sonat Power Marketing Inc. and Sonat Power Marketing L.P.
Split Rock Energy LLC
St Clair Tunnel Company
Teck Cominco Metals Ltd.
Tractebel Energy Marketing Inc.
TransAlta Energy Marketing Corp. and TransAlta Energy Marketing (U.S.) Inc.
TransCanada Energy Ltd.
TransCanada Power Marketing Inc.
UBS AG, London Branch
USGen New England Inc.
Williams Energy Marketing & Trading Canada, Inc.
WPS Canada Generation, Inc.
WPS Energy Services, Inc.





DOCUMENTS

Information Bulletins

The Board publishes Information Bulletins on the subjects listed below:

- The Public Hearing Process
- How to Participate in a Public Hearing
- Traffic, Tolls and Tariffs
- Electricity
- Protection of the Environment
- Pipeline Tolls and Tariffs: A Compendium of Terms
- Pipeline Safety

The Board also publishes the following brochures and booklets:

- Living and Working Near Pipelines – Landowner Guide, 2002
- Excavation and Construction Near Pipelines, January 2002
- A Proposed Pipeline or Power Line Project: What you need to know, 2004

Information Series

The Board publishes the following Information Series:

- Answers to your Questions
- Library and Information Services
- Frontier Information Office
- Pipeline Regulation in Canada: A Guide for Landowners and the Public, June 2003
- Regulation of Commodity Pipelines

Videos

In the Public Interest is a general video about the roles and responsibilities of the NEB.

The Public Hearing Process is an educational video about the hearing process.

MAJOR DOCUMENTS PUBLISHED IN 2004

International Power Lines

Sumas Energy 2, Inc.
Application to construct and operate an international power line denied.
EH-1-2000
Reasons for Decision, March 2004

Tolls and Tariffs

TransCanada PipeLines Limited
2004 Mainline Tolls & Tariff Application, RH-2-2004 Phase I
Reasons for Decision, September 2004

Westcoast Energy Inc.
Toll Settlement 2004 and 2005, RH-1-2004
Reasons for Decision, August 2004

TransCanada PipeLines Limited
Application for approval to establish a new receipt and delivery point, the North Bay Junction, and for the corresponding tolls for services to and from the point, RH-3-2004
Reasons for Decision, December 2004

Electricity

Teck Cominco Metals Ltd.
Electricity Export Permits EPE-243, EPE-244, EPE-245
Letter Decision, 19 February 2004

New York Power Authority
Electricity Export Permits EPE-246, EPE-247
Letter Decision, 26 February 2004

SESCO Enterprises Canada Ltd.
Electricity Export Permits EPE-248, EPE-249
Letter Decision, 7 May 2004

WPS Energy Services, Inc.
Electricity Export Permit EPE-250
Letter Decision, 7 June 2004

Black Oak Capital, LLC.
Electricity Export Permits EPE-251, EPE-252
Letter Decision, 4 June 2004

Citadel Financial Products S.a.r.l.
Electricity Export Permits EPE-253, EPE-254
Letter Decision, 30 June 2004

MAG Energy Solutions Inc.
Electricity Export Permits EPE-255, EPE-256
Letter Decision, 6 July 2004

The Cincinnati Gas & Electric Company
Electricity Export Permits EPE-257, EPE-258
Letter Decision, 24 August 2004

Manitoba Hydro-Electric Board
Electricity Export Permit EPE-259
Letter Decision, 3 November 2004

ALLETE, Inc. d/b/a Minnesota Power
Electricity Export Permits EPE-260, EPE-261
Letter Decision, 14 September 2004

Rainbow Energy Marketing Corporation
Electricity Export Permits EPE-262, EPE-263
Letter Decision, 23 November 2004

Other

National Energy Board Annual Report Pursuant to the Access to Information Act and the Privacy Act 1 April 2003 – 31 March 2004 (June 2004)

National Energy Board 2004-2005 Estimates – Part III – Reports on Plans and Priorities (July 2004)

National Energy Board 2003 Annual Report to Parliament (March 2004)

National Energy Board Performance Report for the period ending March 31, 2004 (August 2004)

Regulatory Agenda, 12 Issues, 31 January 2004 to 31 December 2004

2004 Industry Survey: Final Report/ prepared for the National Energy Board: prepared by Environics Research Group (May 2004)

2004 Landowner Survey: Final Report / prepared for the National Energy Board: prepared by Environics Research Group (May 2004)

The British Columbia Natural Gas Market: an Overview and Assessment (April 2004)

Canada's Conventional Natural Gas Resources: a Status Report (April 2004)

Canada's Oil Sands: Opportunities and Challenges to 2015 (May 2004)

A Compendium of Electric Reliability Frameworks across Canada (June 2004)

Focus on Safety - A Comparative Analysis of Pipeline Safety Performance, 2000-2002 (January 2004)

Looking Ahead to 2010: Natural Gas Markets in Transition (August 2004)

Natural Gas Prices in the Maritimes (March 2004)

Short-term Canadian Natural Gas Deliverability 2004-2006 (November 2004)

Terminology in use at the National Energy Board: English-French

NEB Workshop Proceedings: December 2-4, 2003

Pipeline Incident Report: Natural Gas Pipeline Rupture near Fort St. John, BC, 15 May 2002 (June 2004)

LEGAL PROCEEDINGS

Appeals

1. TransCanada PipeLines Limited (TCPL) - Application to Federal Court of Appeal of Board Decision RH-R-1-2002 - Federal Court of Appeal

On 21 March 2003, TCPL applied to the Federal Court of Appeal for leave to appeal the Board's RH-R-1-2002 Decision issued on 20 February 2003. In this Decision the NEB dismissed TCPL's September 2002 request for a review and variance of the Board's June 2002 RH-4-2001 Decision on the company's fair return application. Leave to appeal was granted and the matter was heard by the Court from 16 February to 19 February 2004.

Decision: On 6 April 2004 the Federal Court of Appeal dismissed TCPL's appeal.

2. Natural Gas Steering Committee (NGSC) – Application for Leave to Appeal the 2003 NEB Decision Relating to Westcoast Energy Inc.'s (WEI) Final 2003 Tolls - Federal Court of Appeal

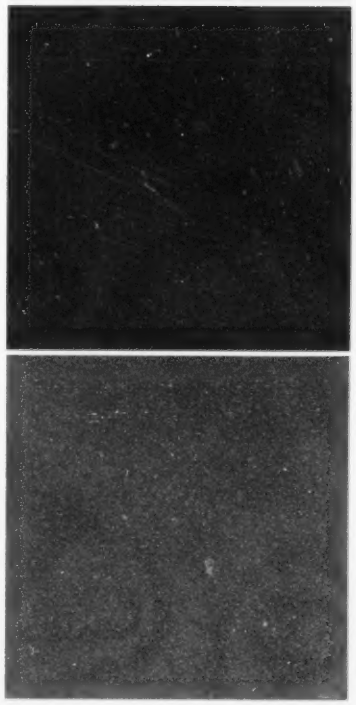
On 24 December 2003, the NGSC applied to the Federal Court of Appeal for leave to appeal the Board's 27 November 2003 decision regarding an application from WEI for approval of final tolls for 2003. The NGSC asked the Federal Court of Appeal for a stay of the application pending the determination of the review application set out in 5 below.

Decision: A Motion of Abandonment was filed with the Federal Court of Appeal on 12 July 2004.

3. Sumas Energy 2, Inc. (SE2) – Application for Leave to Appeal Board Decision EH-1-2000 - Federal Court of Appeal

On 2 April 2004, SE2 applied to the Federal Court of Appeal for leave to appeal the Board's 4 March 2004 Decision in which it denied an application from SE2 to construct the Canadian portion of an international power line. The line would originate at the Canada/United States international boundary near Sumas, Washington and end at a BC Hydro substation in Abbotsford, British Columbia. On 26 July 2004, leave to appeal was granted and a Notice of Appeal was filed on 10 September 2004.

Decision: The matter has not yet been set down for hearing by the Federal Court of Appeal.



4. City of Hamilton - Judicial Review - Trans Northern Pipeline Inc. (TNPI) - Pipeline Replacement and Lowering in Hamilton, Ontario - Decision OHW-1-2003 - Federal Court

On 18 August 2003, the City of Hamilton filed a Notice of Application for Judicial Review with the Federal Court. The Notice sought, among other things, a declaration that the *Canadian Environment Assessment Act* (CEA Act) does not apply to the TNPI application and that no environmental screening is or was required to be carried out by the Board under the CEA Act in respect of the application.

Decision: A Discontinuance of Action was filed with the Federal Court on 1 March 2004.

5. Natural Gas Steering Committee (NGSC) - Application to Review the Board's Decision Relating to Westcoast Energy Inc.'s (WEI) Final 2003 Tolls

On 26 February 2004, the Board granted a request from NGSC to review a previous WEI tolls decision. The issues that the Board decided to review were:

- Whether the Board erred in not finding that the 2003 overhead during construction adjustment resulted from reassessments within the meaning of the 1997-2001 Settlement; and
- Whether the Board did not consider and determine NGSC's request for a review of the 1997-2001 Settlement Toll Orders as well as the 15 April 1999 Board decision.

At issue was whether WEI's decision to expense ODC costs, rather than treat them as capital costs, triggered a non-routine adjustment that would result in cost savings being passed on to certain shippers known as "Option A" shippers. Originally WEI treated ODC costs as capital costs. Subsequently WEI decided to expense these costs because the Canadian Customs and Revenue Agency (CCRA) changed its policy to allow this. WEI filed amended tax returns and received from CCRA Notices of Reassessment accepting WEI's changes. The Board's original decision was that these costs were not non-routine adjustments and that related cost savings were not passed on to Option A shippers.

Decision: The Board concluded that the plain and literal meaning of the word *reassessments* included reassessments arising from CCRA Notices of Reassessment following WEI amended tax returns. The Board found that any ODC adjustments made by WEI that resulted in, or would in future result in, a reassessment were to be passed on the Option A shippers.

6. Canadian Association of Petroleum Producers (CAPP) - Review of Reasons for Decision RH-2-2004, Phase I - TransCanada PipeLines Limited's (TCPL) 2004 Tolls

On 12 November 2004, CAPP applied for a review of the Board's RH-2-2004, Phase I Decision with respect to TCPL's 2004 Mainline Tolls. CAPP stated that the Board committed certain errors that raise a doubt as to the correctness of its decision. Specifically, the errors are:

- Approving tolls for Non-Renewable Firm Transportation Service to be determined on a biddable basis;
- Allowing TCPL to include all forecast long-term incentive compensation costs in its 2004 cost of service;
- Allowing TCPL to recover through tools certain regulatory and legal costs relating to review and appeal proceedings.

Decision: The Board is proceeding by way of a written process. Currently the Board has received submissions from parties as to whether a review should be held and has set 25 January 2005 as the deadline for CAPP to provide its written reply to those submissions.

7. Ms. Anne Martin – Application to Review the Board's Decision Relating to Reclamation of the Right-of-Way by Alliance Pipelines Limited (Alliance)

On 24 August 2004, Ms. Martin applied for a review of the Board's 8 July 2004 decision dealing with reclamation of the right-of-way on Ms. Martin's property by Alliance. Ms. Martin claimed that new circumstances and evidence raised a doubt as to the correctness of the Board's decision.

Decision: The Board is proceeding by way of a written process. Currently the Board has received submissions from both parties as to whether or not a review should be held, and if so, whether or not the decision should be varied.

8. Mr. Ross McKinnon – Application to Review the Board's Decision Relating to Reclamation by TransCanada PipeLines Limited (TCPL)

On 30 August 2004, Mr. McKinnon applied for a review of the Board's 27 September 2002 decision dealing with drainage on Mr. McKinnon's property as part of the reclamation activities conducted by TCPL. Mr. McKinnon claimed that new circumstances and evidence raised a doubt as to the correctness of the Board's decision.

Decision: The Board is proceeding by way of a written process. Deadlines have been set by the Board for submissions by the parties. These deadlines expire on 7 March 2005.

9. Mr. Nikolaos Avgoustis and Ms. Christine Blouin (Landowners) applied to the Board asking it to review its decision, made under subsection 112(4) of the *National Energy Board Act*, to direct them to remove an above-ground pool and deck located on Trans-Northern Pipelines Inc.'s right of way on their property in Laval, Quebec.

Decision: On 18 May 2004, the Board concluded that the factors raised by the Landowners did not raise a doubt as to the correctness of the Board's original decision. Accordingly the application was dismissed.

10. Mr. Étienne Langlois asked the Board to review its decision, made under subsection 112(4) of the *National Energy Board Act*, to direct him to remove a shed located on Trans-Northern Pipelines Inc.'s right of way on his property in Deux-Montagnes, Quebec.

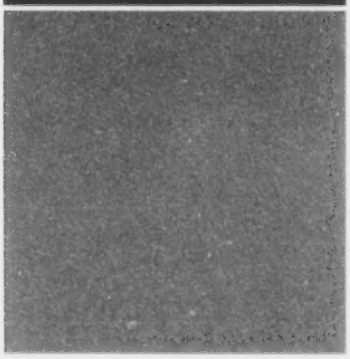
Decision: On 10 November 2004, the Board concluded that there was nothing raised by Mr. Langlois that raised a doubt as to the correctness of the Board's original decision. Accordingly the application was dismissed.

CO-OPERATION WITH OTHER ORGANIZATIONS

The NEB co-operates with other agencies to reduce regulatory overlap and provide more efficient regulatory services.

ALBERTA ENERGY AND UTILITIES BOARD (EUB)

The NEB has a Memorandum of Understanding (MOU) with the EUB on Pipeline Incident Response. The agreement provides for mutual assistance and a faster and more effective response by both Boards to pipeline incidents in Alberta.



The NEB and the EUB maintained their commitment to using the common reserves database for oil and gas reserves in Alberta. Both Boards are committed to developing more efficient methods for maintaining estimates of reserves and to exploring other opportunities for co-operation. Currently the Boards are working on a new assessment of gas resources in Alberta.

BRITISH COLUMBIA MINISTRY OF ENERGY AND MINES (BCMEM)

The NEB and BCMEM maintained their commitment to using a common reserves database for oil and gas reserves in British Columbia. Both Boards are committed to developing more efficient methods for maintaining estimates of reserves and to exploring other opportunities for co-operation. Currently the Boards are working on a new assessment of gas resources in British Columbia.

CANADA-NEWFOUNDLAND OFFSHORE PETROLEUM BOARD (CNOPB) AND CANADA-NOVA SCOTIA OFFSHORE PETROLEUM BOARD (CNSOPB)

The Chairs of the NEB, the CNOPB and the CNSOPB, together with executives from the Newfoundland, Labrador and Nova Scotia Departments of Energy and NRCan, form the Oil and Gas Administrators Advisory Council (OGAAC). The OGAAC membership discuss and decide on horizontal issues affecting their respective organizations to ensure convergence and collaboration on oil and gas exploration and production issues across Canada. The NEB, CNOPB and CNSOPB staff also work together to review, update and amend regulations and guidelines affecting oil and gas activities on Accord Lands.

NEB staff also provides technical expertise to NRCan, CNOPB and CNSOPB on technical matters of mutual interest, such as reservoir assessment, occupational safety and health, diving, drilling and production activities.

In 2002, the NEB and CNSOPB signed an MOU to co-ordinate the regulatory review of the EnCana Deep Panuke Offshore Gas Development project.

CANADIAN ASSOCIATION OF MEMBERS OF PUBLIC UTILITY TRIBUNALS (CAMPUT)

CAMPUT is a non-profit organization of federal, provincial and territorial boards and commissions which are responsible for the regulation of the electric, water, gas and pipeline utilities in Canada. Members sit on the executive committee of the association, promoting the education and training of members and staff of public utility tribunals. The NEB also provides staff support to CAMPUT in the form of information provision and assistance in conference organization. During 2004, the NEB participated in the CAMPUT annual meeting in Halifax, NS and the Regional Technical Conference on Tolls held in Banff, AB.

CANADIAN ENVIRONMENTAL ASSESSMENT AGENCY (CEAA)

NEB staff is actively engaged with CEAA matters, participating in CEAA's Senior Management Committee and acting as an observer on the Regulatory Advisory Committee. This involvement ensures effective co-ordination of regulatory responsibilities relating to environmental assessments.

CO-OPERATION ON THE ENVIRONMENTAL IMPACT ASSESSMENT AND REGULATORY REVIEW OF A NORTHERN GAS PIPELINE PROJECT THROUGH THE NORTHWEST TERRITORIES

In 2002, the NEB, in collaboration with the boards and agencies responsible for environmental impact assessment and regulatory review of a major natural gas pipeline through the Northwest Territories, issued a Co-operation Plan. This plan describes how the agencies propose to co-ordinate their activities to ensure an efficient, flexible and timely process that reduces duplication and enhances public and northern participation in the review of a major pipeline application. The NEB's partners in the Plan include the Mackenzie Valley Land and Water Board, the Sahtu and Gwich'in Land and Water Boards, the NWT Water Board, the Mackenzie Valley Environmental Impact Review Board, the Environmental Impact Screening Committee and the Environmental Impact Review Board for the Inuvialuit Settlement Region, the Inuvialuit Game Council, the Inuvialuit Land Administration, the Canadian Environmental Assessment Agency, the Department of Indian Affairs and Northern Development, and observers from the Deh Cho First Nation, the Government of the Northwest Territories, and the Government of Yukon.

HUMAN RESOURCES AND SKILLS DEVELOPMENT CANADA (HRSDC)

The NEB has an MOU with HRSDC to administer the *Canada Labour Code* for NEB-regulated facilities and activities and to co-ordinate these safety responsibilities under the COGO Act and the NEB Act. The NEB also participated in the HRSDC client satisfaction survey.

NATIONAL ASSOCIATION OF REGULATORY UTILITY COMMISSIONERS (NARUC)

Board Members regularly participate in meetings of the U.S. NARUC, particularly with respect to developments in U.S. gas markets that may affect cross-border trade in natural gas.

NATURAL RESOURCES CANADA (NRCAN)

In 1996, the NEB signed an MOU with NRCan to reduce duplication and increase co-operation between the agencies. This MOU covers items such as data collection, the enhancement of energy models and special studies. The MOU has expired and renewal is being addressed. There is also a MOU for the NEB to administer responsibilities under COGO Act and CPR Act, signed in 1992.

PIPELINE TECHNICAL REGULATORY AUTHORITIES OF CANADA COUNCIL (PTRACC)

The NEB chairs a staff committee of federal and provincial technical regulators. PTRACC meets regularly throughout the year to discuss pipeline safety and environmental initiatives.

TRANSPORTATION SAFETY BOARD OF CANADA (TSB)

While the NEB has exclusive responsibility for regulating the safety of oil and gas pipelines under federal jurisdiction, it shares the responsibility for investigating pipeline incidents with the TSB. The roles and responsibilities of each body with regard to pipeline accident investigations are outlined in a MOU between the two boards.

U.S. FEDERAL ENERGY REGULATORY COMMISSION (FERC) AND COMISIÓN REGULADORA DE ENERGÍA (CRE) OF MEXICO

NEB, FERC and CRE have a tri-lateral agreement to share perspectives on regulatory approaches and to eliminate inconsistencies in those approaches.

NEB and FERC have a bi-lateral agreement to maintain a regular dialogue on their respective regulatory experiences and to exchange information available in the public domain. The purpose of their agreement is to keep one another informed about current and upcoming issues which may affect both organizations, and to mutually benefit from knowledge about best regulatory practices.

The NEB and CRE maintain an ongoing informal relationship, sharing regulatory experience and information on North American energy markets. Both organizations are committed to continuing and strengthening this relationship, which includes inter agency staff visits.

YUKON TERRITORY DEPARTMENT OF ECONOMIC DEVELOPMENT (YDED)

The NEB continues to work with Yukon officials to facilitate the transfer of oil and gas regulatory responsibilities in accordance with the Yukon Accord Implementation Agreement. The Board provides expert technical advice to the YDED. The Services Agreement between the Government of Yukon and the NEB was signed 6 April 2004.

LIST OF APPENDICES

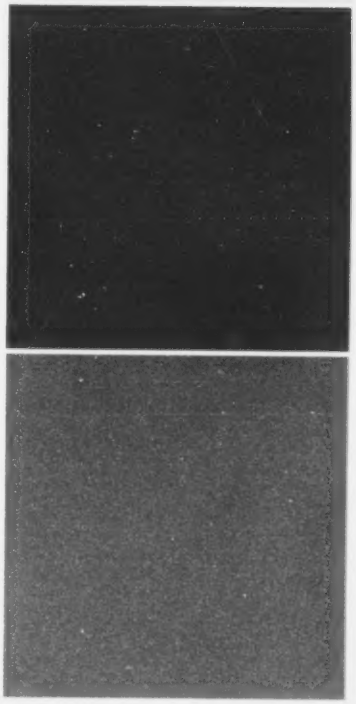
The following Statistical Reports are published separately as Appendices to the Annual Report. Electronic copies can be found on the Board's Internet site (www.neb-one.gc.ca) and printed versions are available from the Publications Office by calling (403) 299-3562 or 1-800-899-1265, or sending a facsimile to (403) 292-5503 or 1-877-288-8803.

Appendix A

- A1 Crude Oil and Equivalent Supply and Disposition
- A2 Estimated Established Reserves of Crude Oil and Bitumen as of 31 December 2003
- A3 Natural Gas Supply and Disposition
- A4 Estimated Established Reserves of Marketable Natural Gas as of 31 December 2003
- A5 Natural Gas Liquids Supply and Disposition
- A6 Geophysical Activity
- A7 Exploration and Development Expenditures
- A8 Sales of Exploration Rights in Western Canada
- A9 Sales of Exploration Rights in Frontier Regions
- A10 Electricity Generation and Disposition

Appendix B

- B1 Certificates Issued During 2004 Approving Oil Pipeline Facilities Including Pipeline Construction Exceeding 40 Kilometres in Length
- B2 Orders Issued During 2004 Approving Oil Pipeline Facilities Including Pipeline Construction Not Exceeding 40 Kilometres in Length
- B3 Exports of Canadian Crude Oil and Equivalent – 2003 and 2004
- B4 Exports of Canadian Crude Oil and Equivalent – 2000 to 2004
- B5 Exports of Petroleum Products by Month – 2004
- B6 Exports of Petroleum Products by Company – 2003 and 2004



Appendix C

C1 Certificates Issued During 2004 Approving the Construction of Gas Pipeline Facilities Exceeding 40 Kilometres in Length

C2 Orders Issued During 2004 Approving the Construction of Gas Pipeline Facilities Not Exceeding 40 Kilometres in Length

C3 Licences and Long-Term Orders to Export Natural Gas as of 31 December 2004

C4 Licences and Long-Term Orders to Import Natural Gas as of 31 December 2004

C5 Natural Gas Exports by Export Point – 2000 to 2004

C6 Total Net Exports of Propane and Butanes – 2003 and 2004

Appendix D

D1 Financial Information – Group 1 Oil Pipeline Companies with Multi-Year Incentive Toll Agreements

D2 Financial Information – Group 1 Oil Pipeline Companies with Tolls based on Cost of Service

D3 Financial Information – Group 1 Gas Pipeline Companies

Appendix E

E1 Certificates and Permits Issued During 2004 for International Power Lines

E2 Amending Orders Issued During 2004 for International Power Lines

E3 Revoking Orders Issued During 2004 for International Power Lines

E4 Licences Issued During 2004 for the Export of Electricity

E5 Permits and Orders Issued During 2004 for the Export of Electricity

E6 Electricity Exports – 2004

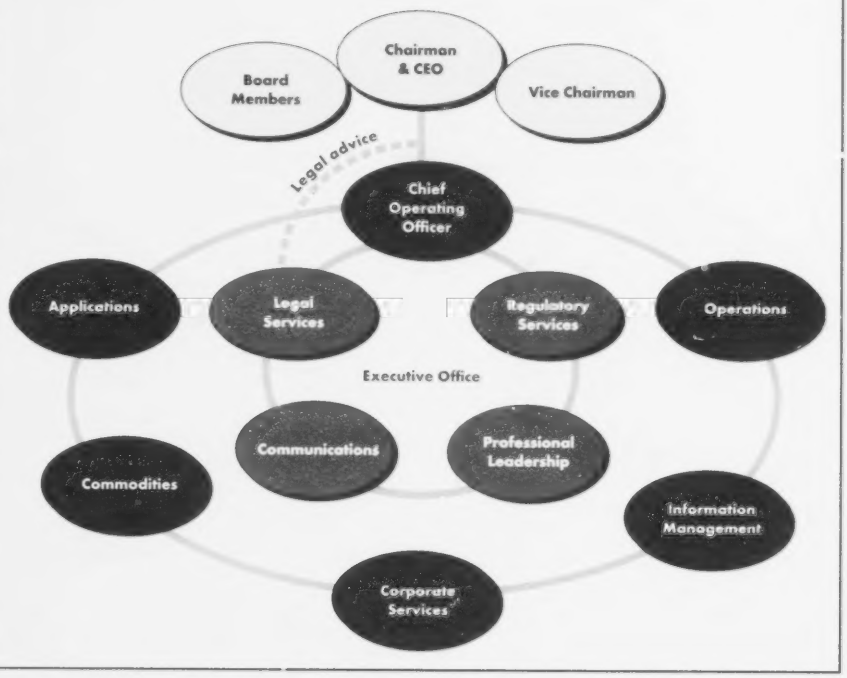
E7 Electricity Trade Between Canada and the United States – 2004 (by Province)

E8 Electricity Trade between the United States and Canada – 2004 (by American Region/State)

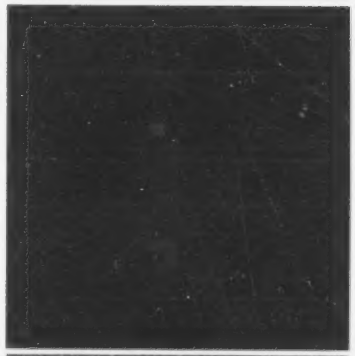
NEB ORGANIZATION

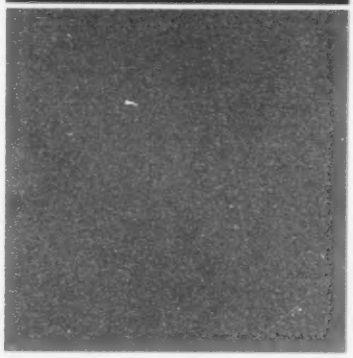
The NEB is structured into five business units, reflecting major areas of responsibility: Applications, Operations, Commodities, Information Management and Corporate Services. In addition, the Executive Office includes four other teams providing specialized services: Legal Services[11], Communications, Professional Leadership and Regulatory Services.

NEB ORGANIZATION CHART*



* There will be organization changes effective 1 April 2005. For further information on this change, please refer to the *2005-06 Report on Plans and Priorities*.





11. Legal Services is accountable to the Chairman and Board Members for the provision of legal advice. It is accountable to the Chief Operating Officer for administrative matters.

SENIOR BOARD STAFF

Jim Donihee, Chief Operating Officer

Judith Hanebury, General Counsel

Michel Mantha, Secretary of the Board

Sandy Harrison, Business Leader, Applications

John McCarthy, Business Leader, Commodities

Valerie Katarey, Business Leader, Corporate Services

Byron Goodall, Business Leader, Information Management

Gregory Lever, Business Leader, Operations

Bonnie Gray, Project Leader, Northern Preparedness

Glenn Booth, Professional Leader, Economics

Alan Murray, Professional Leader, Engineering

Robert Steedman, Professional Leader, Environment

BUSINESS UNIT RESPONSIBILITIES

Applications

The Applications Business Unit is responsible for processing and assessing most regulatory applications submitted under the NEB Act. These fall primarily under Parts III and IV of the NEB Act, corresponding to facilities and tolls and tariffs applications and for the construction and operation of international and interprovincial electric power lines. It is also responsible for other matters such as the financial surveillance and financial audits of companies under the Board's jurisdiction and addressing landowner concerns.

Commodities

The Commodities Business Unit is responsible for energy industry and marketplace surveillance, including the outlook for the demand and supply of energy commodities in Canada, updating guidelines, and regulations relating to energy exports as prescribed by Part VI of the NEB Act. It is also responsible for assessing and processing applications for oil, natural gas and electricity exports.

Operations

The Operations Business Unit is accountable for safety and environmental matters pertaining to facilities under the NEB Act, the COGO Act and the CPR Act. It conducts safety and environmental inspections and audits, investigates incidents, monitors emergency response procedures, regulates the exploration, development and production of hydrocarbon resources in non-accord frontier lands, and develops regulations and guidelines with respect to the above.

Information Management

The Information Management Business Unit is responsible for developing and implementing an information management strategy for the Board and disseminating the information required by internal and external stakeholders. Its responsibilities include library services, corporate records management, mail services, access to information, document production services, and Board-wide computer services.

Corporate Services

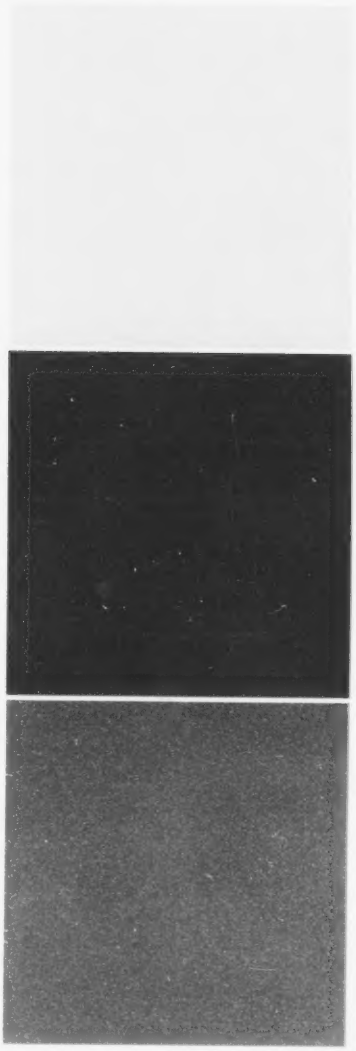
The Corporate Services Business Unit provides those services necessary to assist the Board in its management of human, materiel and financial resources. Its responsibilities include corporate policy and planning activities, materiel and facilities management, staffing, training, compensation and benefits, procurement, inventory control, physical security, and union/management activities.

Executive Office

The Executive Office is responsible for the Board's overall capability and readiness to meet strategic and operational requirements including legal advice for both regulatory and management purposes, maintaining and enhancing technical expertise within the Board in the economic, environmental and engineering fields, internal and external communications, and hearing administration and regulatory support.

LIST OF ABBREVIATIONS

ADR	appropriate dispute resolution
Alliance	Alliance Pipeline Ltd.
AVC	assurance of voluntary compliance
BC Hydro	British Columbia Hydro and Power Authority
Board or NEB	National Energy Board
CAPP	Canadian Association of Petroleum Producers
CAMPUT	Canadian Association of Members of Public Utility Tribunals
CEAA	Canadian Environmental Assessment Agency
CEA Act	*Canadian Environmental Assessment Act*
COGO Act	*Canadian Oil and Gas Operations Act*
Cooperation Plan	*Cooperation Plan for the Environmental Impact Assessment and Regulatory Review of a Northern Gas Pipeline Project through the Northwest Territories*
CRE	Comisión Reguladora de Energía
CSA	Canadian Standards Association
EACSR	External Advisory Committee on Smart Regulation
e-filing	Electronic Regulatory Filing
EMA	Energy Market Assessment
Enbridge	Enbridge Pipelines Inc.
ESIMS	Environmental and safety information management system
ESRF	Environmental Studies Research Funds



FERC	Federal Energy Regulatory Commission
GDP	Gross Domestic Product
IPL	international power line
Line 9	Enbridge's crude oil pipeline from Montreal to Sarnia
LNG	liquefied natural gas
MOU	Memorandum of Understanding
NEB or Board	National Energy Board
NEB Act	*National Energy Board Act*
NGLs	natural gas liquids
NYMEX	New York Mercantile Exchange
OPEC	Organization of Petroleum Exporting Countries
OPR-99	*Onshore Pipeline Regulations, 1999*
PADD	Petroleum Administration for Defense District
PPR	*Processing Plant Regulations*
RTO	regional transmission organization
Sumas or SE2	Sumas Energy 2 Inc.
TransCanada	TransCanada PipeLines Limited
TSB	Transportation Safety Board of Canada
WCSB	Western Canada Sedimentary Basin
Westcoast	Westcoast Energy Inc.
WTI	West Texas Intermediate

The Board uses the International System of Units. The energy content of a 30-litre tank of gasoline is approximately one gigajoule. A petajoule is one million gigajoules. On average, Canada consumes about one petajoule of energy every 50 minutes for all uses (heat, light and transportation).

The following conversion table is provided for the convenience of readers who may be more familiar with the Imperial System.

APPROXIMATE CONVERSION FACTORS

metre	=	3.28 feet
kilometre	=	0.62 mile
hectare	=	2.47 acres
cubic metre of oil	=	6.3 barrels
cubic metre of natural gas	=	35.3 cubic feet
gigajoule	=	0.95 thousand cubic feet of natural gas at 1 000 Btu per cubic foot or 0.165 barrels of oil, or 0.28 megawatt hours of electricity
gigajoule	=	10^9 joules
petajoule	=	10^{15} joules
gigawatt hour	=	10^6 kilowatt hours
terawatt hour	=	10^9 kilowatt hours